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OCCUPATIONAL INJURIES AND DISEASES IN **ALBERTA**



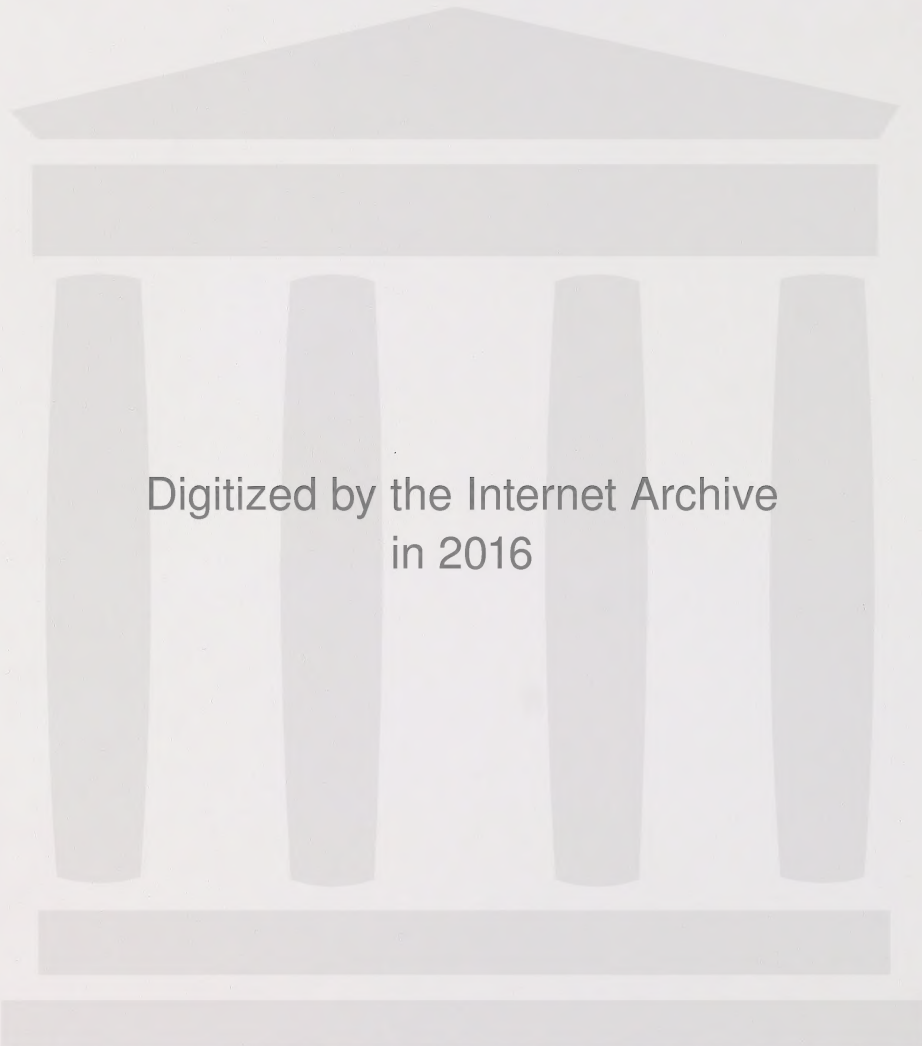
Lost-Time Claims, Disabling Injury
Claims and Claim Rates

2007 Summary

Summer 2008



Alberta Employment and
Immigration



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HIGHLIGHTS

Overall, Alberta was a safer, healthier place to work.

- The lost-time claim rate of Alberta workplaces decreased by 9.7% in 2007 to 2.12 per 100 person-years worked, from 2.35 in 2006. The 2007 rate was the lowest since 1991 when the current methodology was implemented. The duration rate of 48 days-lost per 100 person-years worked was down from 54 days-lost in 2006.
- The disabling injury rate, which includes modified work claims, decreased by 6.3% in 2007 to 3.88 per 100 person-years worked, from 4.14 in 2006.
- The average fatality rate, as measured over a ten-year period from 1998 to 2007, was 92 per million person-years worked. The ten-year rate in 2006 was 78 fatalities per million person-years worked.

Medium and large sized employers experienced the highest injury rates.

- In 2007, employers with 40 to 99 person-years worked (workers) continued to have the highest lost-time claim rate at 2.43 per 100 person-years worked. Employers with over 100 person-years worked had the highest disabling injury rate at 4.34 per 100 person-years worked.

Lost-time claim rates decreased in most sectors.

- Lost-time claim and disabling injury rates decreased in all of the eight major industry sectors between 2006 and 2007.
- The Mining and Petroleum Development sector had the lowest lost-time claim rate of all sectors in 2007 at 0.76 per 100 person-years worked. The Agriculture and Forestry sector had the highest lost-time claim rate, 2.99 per 100 person-years worked.
- The Business, Professional and Personal Services sector had the lowest disabling injury rate in 2007 at 1.86 per 100 person-years worked. The Manufacturing, Processing and Packaging sector had the highest, 6.50.
- Fatality rates continued to be lower than the provincial average in the following sectors: Wholesale and Retail, Public Administration, Education and Health Services and the Business, Personal and Professional Services.

Lost-Time Claim and Disabling Injury Rates by Major Industry Sector – Alberta: 2006 and 2007

Industry Sector	2006		2007	
	Lost-Time Claim Rate	Disabling Injury Rate	Lost-Time Claim Rate	Disabling Injury Rate
Agriculture and Forestry	3.24	4.10	2.99	3.75
Business, Personal and Professional Services	1.48	2.00	1.30	1.86
Construction and Construction Trade Services	2.50	5.22	2.32	5.05
Manufacturing, Processing and Packaging	3.11	7.01	2.75	6.50
Mining and Petroleum Development	0.87	3.64	0.76	3.02
Public Administration, Education and Health Services	2.69	3.44	2.44	3.14
Transportation, Communication and Utilities	3.17	4.81	2.94	4.70
Wholesale and Retail	2.43	3.67	2.17	3.55
Alberta	2.35	4.14	2.12	3.88

Data Source: WCB Data, Prepared by Data Development and Evaluation

Overexertion was the most common cause for claims in all industries.

- In 2007, there were 34,227 workplace injuries and diseases serious enough to submit a lost-time claim, a decrease of 6.7% from 2006. Of these, 14,245 claims also involved workers having their duties modified to help accommodate for their injuries, either prior to needing time off or after time-lost due to an injury or disease.
- In total, there were 42,491 claims submitted to the Workers' Compensation Board – Alberta (WCB) in 2007 involving modified work.
- Combining information on lost-time claims and modified work claims provides a measure of disabling injury claims. In 2007, there were 62,473 disabling injury claims, a decrease of 3.2% from 2006.
- Sprains, strains and tears continued to be the leading nature of injury with the back (including spine and spinal cord) the most commonly injured body part.
- Person-injured or ill worker (self-injury or self-induced bodily motion injuries) was the leading source of injury, with overexertion the leading type of event.

A few notes about this report:

- This report presents 2007 data beside 2006 data to help with comparisons. Additional historical data are presented where possible.
- Information presented in this report is based on incidents that occurred during 2007 and accepted as lost-time or modified work claims by WCB as of March 31, 2008.
- About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.
- Injury claim rates based on a small number of person-years worked are too volatile to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked. Duration rates are also volatile when based on a small number of lost-time claims. Duration rates are not calculated when there are fewer than 30 lost-time claims.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables may also not total 100, due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, the disabling injury rate is the number of disabling injury claims per 100 person-years worked and the duration rate is the number of days-lost per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and aggregation. For more information see http://www.wcb.ab.ca/pdfs/08rate_manual.pdf.
- Analyses by occupation group are based on the National Occupation Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see <http://www5.hrsdc.gc.ca/NOC-CNP/app/index.aspx?lc=e>.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For more information <http://www.csa-intl.org/onlinestore/GetCatalogDrillDown.asp>.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

INTRODUCTION

Role of the Ministry of Employment and Immigration

The Ministry of Employment and Immigration includes the reporting entity of the Department of Employment and Immigration (E&I). E&I develops and delivers policies, programs and services to foster labour force development; ensure fair, safe and healthy workplaces; and help those in need. The Department also provides leadership for immigration and interprovincial labour mobility policy for the Government of Alberta, and coordinates resources to support the settlement and integration of new Albertans.

Occupational Injuries and Diseases in Alberta - 2007 Summary

E&I prepares this annual report to provide analysis of workplace health and safety to meet the demand from industry and safety associations, labour organizations, employers and workers for incorporating this information into their strategic plans for enhancing workplace health and safety. This includes:

- descriptions of programs and initiatives undertaken in pursuit of its workplace health and safety mission and goals;
- analysis of provincial occupational injury and disease information against a national picture;
- estimations of the risk of injury or disease at the provincial, industry sector and sub-sector level as well as general descriptions about the incidents and injured workers; and
- analysis of workplace injury and disease literature in Alberta.

The *Occupational Injury and Diseases in Alberta* publications present analysis of aggregate injury claim data to allow for the tracking of workplace health and safety performance over time. This is important for evaluating past and present performance, and in providing strategic information for the direction of workplace health and safety policy. The analysis contained in this report provides a comprehensive picture of workplace injuries in the province, allowing for a prevention focus to be made based on injury probabilities, rather than possibilities.

Sustainable economic growth

E&I promotes safe, healthy and productive workplaces, as well as fair, equitable and stable labour relations to ensure a fair, safe and healthy work environment for Alberta's workers. Work is central to people's lives, and to the stability of families and societies. People want work that provides them with an acceptable standard of living. It is important that workers enter an environment where their health and safety are protected, where they are treated with respect and they are compensated fairly for the job they are doing. This results in an attractive workplace that furthers the position of Alberta employers to be competitive in the global economy (see Note 1.1). Alongside the human cost of occupational injuries and diseases and the impact on families and society, the economic costs are numerous.

In 2008, direct compensation payments for occupational injury and disease by WCB were projected to total \$755 million.¹ These costs are ultimately paid by employers through premium payments, and impact the costs of running a business as well as the final cost of delivering products and services. Further costs associated with occupational injuries and diseases include the material damage to equipment and premises, the additional cost of hiring staff to cover for injured workers, and the lost productivity resulting from the absence. Additional impacts of poor health and safety for employers include higher absenteeism and lower morale of employees, loss of skilled and experienced employees, loss of the company's investment in training, and difficulty recruiting high-quality employees due to the loss of image (particularly in the case of subcontractors to larger companies) all leading to losses in productivity and underutilization of production (see Note 1.2).

Other costs borne by the economy and society due in part to work-related injuries and diseases include early retirements, unemployment and poorer households. The International Labour Organization (ILO) estimates that in high-income countries, around 40% of all retirements (before statutory age) are caused by disability. This is equivalent to around 14% of the lifetime working capacity of the employed labour force.² Occupational injuries and diseases also affect unemployment and household

Note 1.1

Research by the International Institute for Management Development and the World Economic Forum suggests that the safest-working countries also have the best competitiveness ratings

(International Labour Organization, *Safety in Numbers – pointers to a global safety culture at work*, 2003).

Note 1.2

The International Labour Organization (ILO) estimates that approximately 4% of Gross Domestic Product is lost due to occupational injuries and diseases (ILO, *Safety in Numbers – pointers to a global safety culture at work*, 2003).

¹ See the Workers Compensation Board Alberta 2008 Premium Rate Manual http://www.wcb.ab.ca/pdfs/08rate_manual.pdf

² See the International Labour Organization report: Safety in numbers – pointers for a global safety culture at work http://www.ilo.org/public/english/protection/safework/worldday/report_eng.pdf

income levels. Workers with an impairment of capacity can reduce their re-employability and impact household income. Workplace injuries and diseases typically reduce the overall earnings of households and in certain cases, family members have to give up jobs in order to care for an injured worker.

Sustainable economic growth creates the prosperity needed to sustain quality of life and ensures a higher standard of living. Sustainable economic performance can be achieved if growth pressures are properly addressed. The economy can also only be sustained if Alberta has the right people with the right skills at the right time to do the work.

WORKPLACE HEALTH AND SAFETY INITIATIVES

The Alberta government has developed strategies to ensure Alberta continues to be a healthy and safe place to work and conduct business.

The strategies include:

- awarding and recognizing health and safety innovations and performance; and
- working with employers and workers to promote safe workplaces.

Awards recognize health and safety performance and innovation

The 17th annual Alberta Business Awards of Distinction were presented at a gala banquet in Calgary on February 29, 2008. The Alberta Chambers of Commerce has presented the Alberta Business Awards of Distinction since 1996. The awards recognize and celebrate excellence across the business spectrum, including diversity in the workplace, youth employment opportunities, marketing successes and workplace health and safety. This year, as part of the Alberta Business Awards of Distinction, the Occupational Health and Safety Council sponsored the following Work Safe awards:

- the Health and Safety Leader Award of Distinction;
- the Health and Safety Performance Improvement Award of Distinction; and
- the Health and Safety Innovation Award of Distinction.

Health and Safety Leader Award of Distinction

The Health and Safety Leader Award of Distinction recognizes an organization that leads its industry with an exemplary health and safety program and proven injury prevention track record. In 2008, Albi Homes won the award. Albi Homes is a Calgary Builder with 110 employees. It has achieved a Certificate of Recognition and has full commitment for health and safety from its ownership group and the senior leadership team. Albi Homes demonstrated leadership in health and safety through its standards and policies for staff and partners, its ongoing training of staff, regular safety meetings, and celebrations with staff. As well, Albi Homes is working with other builders to standardize health and safety guidelines for the industry in Calgary.

Health and Safety Innovation Award of Distinction

The Health and Safety Innovation Award of Distinction recognizes the most innovative health and safety initiatives in Alberta workplaces over the previous year. All types of innovations relating to occupational health and safety are considered; examples include management of workplace impairment issues, planning for safety at the design stage of projects, the use of engineering controls to replace the necessity for personal protective equipment, and the development of worker and manager competencies.

In 2008, Worldwide Matrix Inc. and Norwood Foundry Limited won the award. Overcoming what was thought to be an impossible problem led Worldwide Matrix to an innovation that has reduced the chance of explosion, fire, environmental damage or injuries to workers, especially in sour gas applications. The company's Matrix Early Warning System accurately predicts pipeline blowouts before they happen, giving operators time to react to the situation before it is too late. Since 2004, this innovation has had a 100% success rate with no hydrocarbons released to the atmosphere due to pipe failure.

Norwood Foundry produces a variety of custom metal castings. During the casting process carbon monoxide (CO) is produced and air quality samples taken from worker breathing zones frequently exceeded the allowable limits. Norwood Foundry developed a solution to remove the CO from the work area using a unique system of hoods to pull it through the company's ventilation system and out of the building using the natural convection created by the cooling moulds. Tests conducted during an inspection measured zero parts per million of CO in the operator breathing area, far exceeding expectations for the system.

Note 2.1

Information on the 2007 Awards for Innovation in Workplace Health and Safety winners can be found online at:

<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/5360.html>

Best health and safety performers recognized

The Annual Best Safety Performer Awards recognize Alberta employers with exceptional performance in workplace health and safety over the past year. In 2008, around 700 Alberta employers from across the province were awarded the designation of 2007 Best Safety Performer for their exceptional health and safety performance.

Note 2.2

A full list of the Best Safety Performers Award winners is available at:

<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/1517.html>

Workplace health and safety information and communications continued to reach employers and workers

E&I continued to encourage health and safety awareness for both employers and workers by providing educational and promotional materials through the Work Safe Alberta Initiative. Work Safe Alberta is a joint industry, labour and government initiative established to develop and implement strategies to prevent work-related illnesses and injuries in Alberta. Some of the activities completed or initiated in 2007 include:

- a joint initiative with Alberta Education to develop and launch workplace health and safety resources for teachers to use in Alberta high schools to infuse a workplace health and safety culture in Alberta's schools;
<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/3133.html>
- ongoing provision of the Work Safe Alberta Passport for students and workers to record recognized health and safety training;
- the development of a Road Safety at Work strategy as part of the Work Safe Alberta's participation with Alberta's Traffic Safety Plan;
- the Young Worker Advisory Committee developed a strategic plan to improve health and safety for young workers;
- the annual implementation of a Targeted Programs Plan to provide targeted inspections and proactive initiatives towards employers and industries with the highest injury and illness rates;
- the development of three new interactive eLearning awareness programs for the Workplace Health and Safety website on Impairment in the Workplace, Basic Ergonomics, and Health and Safety for Schools;
<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/268.html>
- the development of Best Practices Toolkits for Motor Dealers and Theatres
<http://www.employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/136.html>; and
- the formation of a new partnership with Alberta's industry and safety associations, called the Health and Safety Association Network, which aims to establish a province-wide worker safety training certification program.

For further information on Work Safe initiatives see,
<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/53.html>

Workplace Health and Safety Contact Centre

The Workplace Health and Safety Contact Centre (WHSCC, Tel: 1-866-415-8690) provides information and advice on how to meet the requirements of Alberta's Occupational Health and Safety legislation. The WHSCC also receives workplace health and safety complaints, immediate danger notifications and incident notifications. Introduced in 2001, the WHSCC now responds to upwards of 24,000 telephone and 3,500 e-mail inquiries and complaints each year. The Workplace Health and Safety (WHS) website averaged about 127,250 views and 39,485 downloads per month.³

In October 2005, the contact centre began answering telephone inquiries regarding the WHS Partnerships Program and the process for employers to follow in achieving a Certificate of Recognition.

Partnership and Certificate of Recognition Programs

Partnerships in Health and Safety promote health and safety through partnerships with safety associations, industry groups, educational institutions and labour organizations. A Certificate of Recognition (COR) is given to employers who develop health and safety management systems that meet established standards. Certificates are issued by Certifying Partners and are co-signed by E&I. Achieving and maintaining a valid COR is required to earn a financial incentive through the WCB's Partners in Injury Reduction program.

The number of employers holding a valid COR increased from 6,232 in 2006 to 7,123 in 2007. For further information on Partnerships see, <http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/277.html>

Fines penalize those who neglect safe work practices

In 2007, 12 employers were prosecuted with violating the *Occupational Health and Safety Act*. The penalties resulting from these infractions totaled \$1,720,000, a record high in the province. The range of court penalties in 2007 ranged from \$70,750 to \$350,000.

For more detailed information on the employers facing prosecution and violations of the *Occupational Health and Safety Act* see, <http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/5538.html>

³ Average views and downloads per month were calculated over a three month period (January – April 2007).

PROVINCIAL SUMMARY

The positive trend continues: there were fewer injuries reported and more person-years worked in 2007.

In recent years, improvements were made to the analysis of Workers' Compensation Board – Alberta (WCB) claim information allowing for modified work claims to be analyzed alongside lost-time claims. Using modified work claim data in addition to lost-time claim data ensures a more comprehensive picture of workplace injuries, and allows for greater insight into incident prevention.

A lost-time claim is a claim submitted to the WCB for an occupational injury or disease that causes a worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function (for example, hearing loss).

A modified work claim is submitted for an occupational injury or disease where workers have their normal work duties altered enabling them to remain working without losing time from work. Included in the figures are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease, and cases where workers were provided modified duties prior to time lost because of an injury or disease.

Modifying an injured worker's duties can be beneficial for both an employer and an employee. For the employer, the financial cost of an absent worker can be high and returning an injured employee to work as soon as it is medically possible is important for properly managing compensation, disability claims and productivity levels. For the employee, returning to work as soon as medically possible is beneficial both physically and psychologically, and is linked to quicker recovery rates and higher self-esteem. Long absences from the workplace are also linked to decreases in labour market attachment.

The number of disabling injury claims reflects both the lost-time and modified work concepts and produces an overall figure where an occupational injury or disease disables a worker causing either time lost from work or for normal work duties to be modified.

Note 3.1

- The lost-time claim rate represents the probability or risk of an injury or disease to a worker requiring time away from work, during a period of one year of work.
- The disabling injury rate represents the probability or risk of a disabling injury.

In 2007, a total of 34,227 lost-time claims were accepted by WCB. This is a decrease of 6.7% from 2006. In contrast, the person-years worked estimates increased by 3.3% to 1,611,892 between 2006 and 2007 (see Table 3.1).

Table 3.1
Provincial Figures – Alberta: 2006 and 2007

	2006	2007	% Change
Person-years worked	1,560,078	1,611,892	3.3%
Lost-time claims	36,701	34,227	-6.7%
Lost-time claim rate	2.35	2.12	-9.7%
Modified-work claims	41,390	42,491	2.7%
Lost-time claims involving modified-work	13,566	14,245	5.0%
Disabling injury claims	64,525	62,473	-3.2%
Disabling injury rate	4.14	3.88	-6.3%
Duration rate	54	48	-12.0%
Days lost (LTC)	844,508	767,671	-9.1%
Compensation payments (LTC)	\$202,598,539	\$219,296,722	8.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Expressed as a lost-time claim rate, the data translates into a rate of 2.12 per 100 person-years worked, a decrease of 9.7% from 2006, as proportionately there were fewer lost-time injury claims. The 2007 lost-time claim rate is the lowest in the past seventeen years and since 1991, the lost-time claim rate has fallen by 48.7% (see Chart 3.1). The last five years has seen a fall in the lost-time claim rate of 23.7%. For reference, the 2007 lost-time claim rate of 2.12 injuries or diseases per 100 person-years worked translates into 11 injuries and diseases per million hours worked.

The total number of modified work claims submitted in 2007 was 42,491, an increase of 2.7%. There were 14,245 claims involving both lost-time and modified work, producing 62,473 disabling injury claims, a decrease of 3.2% from 2006 (see Table 3.1). The number of lost-time claims involving modified work increased by 5.0% from 2006, indicative of improving claims management. Expressed as a rate, the 2007 disabling injury rate was 3.88 per 100 person-years worked, a decrease of 6.3% from the 2006 rate of 4.14.

Note 3.2

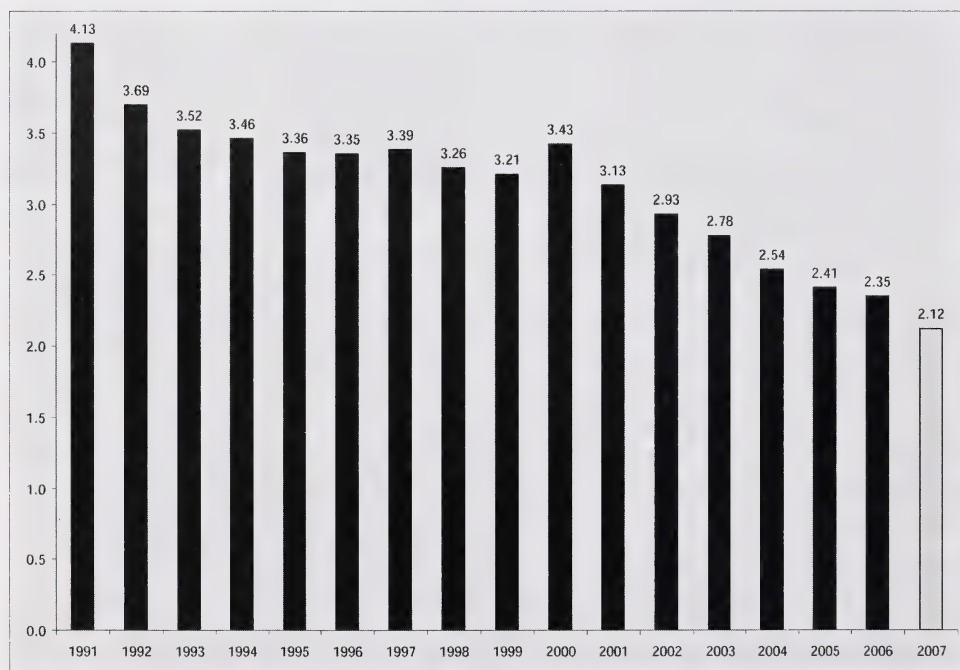
Canadian research suggests that about 40% of workplace injuries go unreported. Severity of injury was the single best predictor of a worker filing for compensation (Shannon and Lowe, 2002).

An Ipsos-Reid survey of 1,200 North American workers found 3 in 10 Canadians know that employees report false injury claims and an equal number said that employees are afraid to report workplace incidents (WorkplaceToday, 2003).

Estimates of injury and disease severity are calculated using information on the number of days-lost from work. Three basic measures of severity are the duration rate, median days-lost from work and average days-lost from work. The severity of the injuries and diseases fell in 2007, as reflected by a lower duration rate and a fall in average days-lost. Although, the efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also has a positive impact on work days-lost. The duration rate of 48 days per 100 person-years worked was 12.0% lower than in 2006 (see Table 3.1). The median number of work days-lost in 2007 was seven, the same as 2006, and the average days-lost fell to 22, from 23 in 2006.

Chart 3.1

**Lost-Time Claim Rate per 100 Person-years worked - Alberta:
1991-2007**



Data Source: WCB Data, Prepared by Data Development and Evaluation

The compensation payments made in 2007 averaged \$6,500 per lost-time claim. Over the life cycle of a lost-time claim however, average costs are higher. In 2007, the average fully-funded cost of a lost-time claim was \$19,400. The total days-lost (relating to lost-time claims) in 2007, fell by 9.1% to 767,671.

Employer Size

Broken down by size⁴, employers with 40 to 99 person-years worked and employers with 20 to 39 person-years worked had the highest lost-time claim rates in 2007, at 2.43 and 2.33 per 100 person-years worked respectively. Employers with 100 or more person-years worked had the highest disabling injury rate at 4.34 per 100 person-years worked (see Table 3.2).

The pattern of claim rates by employer size differs depending on the measure. Large employers have one of the lowest lost-time claim rates and yet highest disabling injury rates. This is indicative of having better health and safety systems in place and more proficient claims management. However, it is also a reflection of larger employers having greater capacity to offer modified duties to an injured worker.

Table 3.2
Lost-Time Claim and Disabling Injury Rate by Size of Employer
- Alberta: 2007

Size of Employer	Employer Accounts	Lost-Time Claims	Lost-Time Claim Rate	Disabling Injury Claims	Disabling Injury Rate
Less than 10 person-years worked	135,854	4,222	1.88	5,077	2.26
10 to 19 person-years worked	8,105	2,359	2.07	3,197	2.80
20 to 39 person-years worked	5,002	3,264	2.33	4,825	3.44
40 to 99 person-years worked	3,459	5,172	2.43	8,795	4.12
100 or more person-years worked	2,304	18,744	2.04	39,920	4.34
Unspecified*	148	466	N/A	659	N/A
Total	154,872	34,227	2.12	62,473	3.88

* These are employers with no supplied payroll information

Data Source: WCB Data, Prepared by Data Development and Evaluation

Distribution of Injury Claims

Table 3.3 presents figures for the proportion of employers without lost-time or disabling injury claims in 2007. Table 3.4 displays figures for the number of claims submitted by employers.

At the provincial level, 93% of employers had no lost-time claims and 91% had no disabling injury claims, meaning the injuries and diseases happening in the province are the result of incidents occurring at the operations of less than 10% of employers. These figures however, are influenced by employer size. In 2007, the number of employers with no lost-time claims and the number with no disabling injury claims translates to 36% and 30% of the total person-years worked in the province respectively (see Table 4.2).

⁴ Size is measured in terms of person-years. One person-year is equivalent to one full-time worker working for one year.

Table 3.3**Proportion of Employers with no Lost-Time or Disabling Injury Claims - Alberta: 2007**

Proportion of Employers	With no Lost-Time Claims	With no Disabling Injury Claims
Alberta	93%	91%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers with submitted claims, 61% submitted one lost-time claim, 30% two to five claims, and 9% six or more lost-time claims. For disabling injury claims, similar proportions exist although they reflect a higher prevalence of a wider range of injuries (see Table 3.4).

Table 3.4**Proportion of Employers with Claims - Alberta: 2007**

1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
61%	30%	7%	2%
1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
55%	30%	11%	3%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Employers that submitted less than five lost-time claims and employers that submitted less than five disabling injury claims accounted for 30% and 25% of the total person-years worked in the province respectively. Employers that submitted six or more lost-time claims and employers that submitted six or more disabling injury claims accounted for 34% and 45% of the total person-years worked in the province.

National Occupational Injury and Fatality Data - 2006

Alberta's injury frequency can be compared nationally using information calculated by the Association of Workers' Compensation Boards Canada (AWCBC). Its methodology for calculating the person-years worked estimates produces higher estimates and lower rate figures, and cannot be compared directly to injury rates produced for this report. However, it is useful for comparing Alberta's performance against other provinces and nationally.

Table 3.5
Injury and Fatality Data by Province and Territory – Canada:
2006

Province	Lost Time Claims	Injury Frequency* (per 100 workers)	Number of Fatalities	Fatality Frequency* (per 100,000 workers)	% of Workforce Covered
Alberta (AB)	36,701	2.24	124	6.63	89%
British Columbia (BC)	61,118	3.12	160	7.29	100%
Manitoba (MB)	16,104	4.65	27	4.60	69%
New Brunswick (NB)	3,394	1.33	15	4.22	94%
Newfoundland and Labrador (NL)	4,175	2.36	18	8.34	97%
Nova Scotia (NS)	7,697	2.80	12	2.72	72%
Ontario (ON)	67,402	1.61	373	5.74	73%
Prince Edward Island (PE)	743	1.35	0	0.00	93%
Quebec (QC)	91,286	2.69	206	5.47	93%
Saskatchewan (SK)	13,782	3.93	30	6.10	73%
Yukon Territory	494	2.56	3	N/A**	100%
Northwest Territories and Nunavut	886	2.71	8	N/A**	100%
Canada	303,782	2.39	976	5.92	81%

*See note 3.3

** No LFS data available for the Yukon Territory or Northwest Territories and Nunavut.

Data Source: CANSIM Labour Force Survey Series; AWCBC National Work Injury and Disease Statistics, 2007

In 2006, Alberta's injury frequency was 2.24 injuries per 100 workers, the fourth lowest in the country and lower than the national injury frequency of 2.39. However, Alberta had the third highest fatality frequency in the country at 6.63 fatalities per 100,000 workers. The national frequency was 5.92 per 100,000 workers (see Table 3.5).

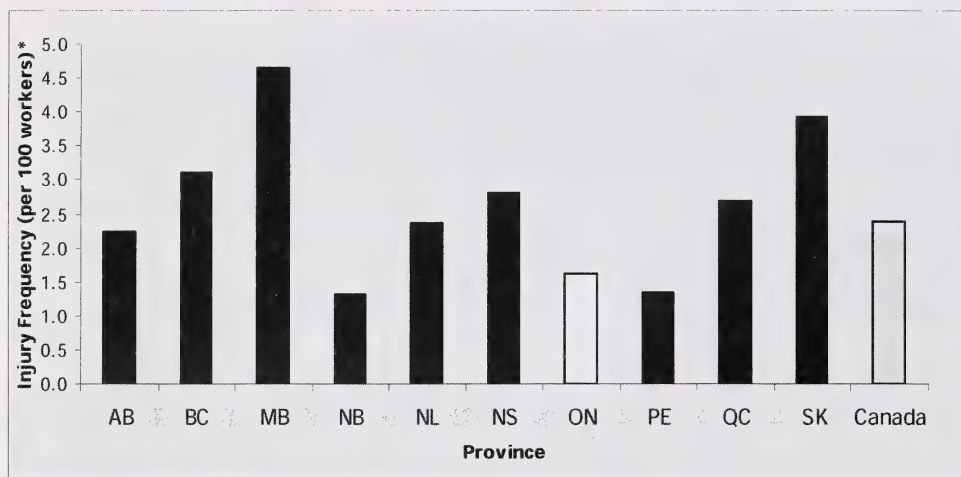
A high injury frequency does not necessarily translate into a high fatality frequency. For instance, Manitoba has the highest injury frequency in the country, 4.65 per 100 workers, yet has the fourth lowest fatality frequency, 4.60 per 100,000 workers. Saskatchewan and Newfoundland also follow this pattern (see Charts 3.3 and 3.4).

Note 3.3

The injury frequency data presented here and the lost-time claim rate, although similar, are calculated using different methodology and information. Thus, injury frequency, for the purposes of this publication, is used only as a measure of comparison purposes, not a representation of the provincial lost-time claim rate. The same relationship holds for the fatality frequency and fatality rate.

Chart 3.3

Injury Frequencies by Province - Canada: 2006

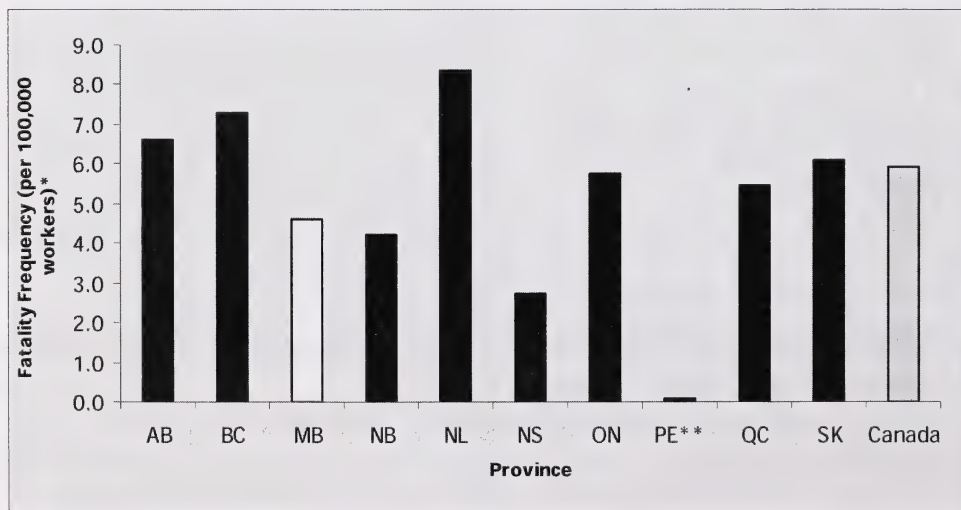


* See note 3.3

Data Source: AWCBC National Work Injury and Disease Statistics, 2007

Chart 3.4

Fatality Frequencies by Province - Canada: 2006



* See note 3.3

** The 2006 fatality frequency for Prince Edward Island was zero. See Table 3.5.

Data Source: CANSIM Labour Force Survey Series; AWCBC National Work Injury and Disease Statistics, 2007

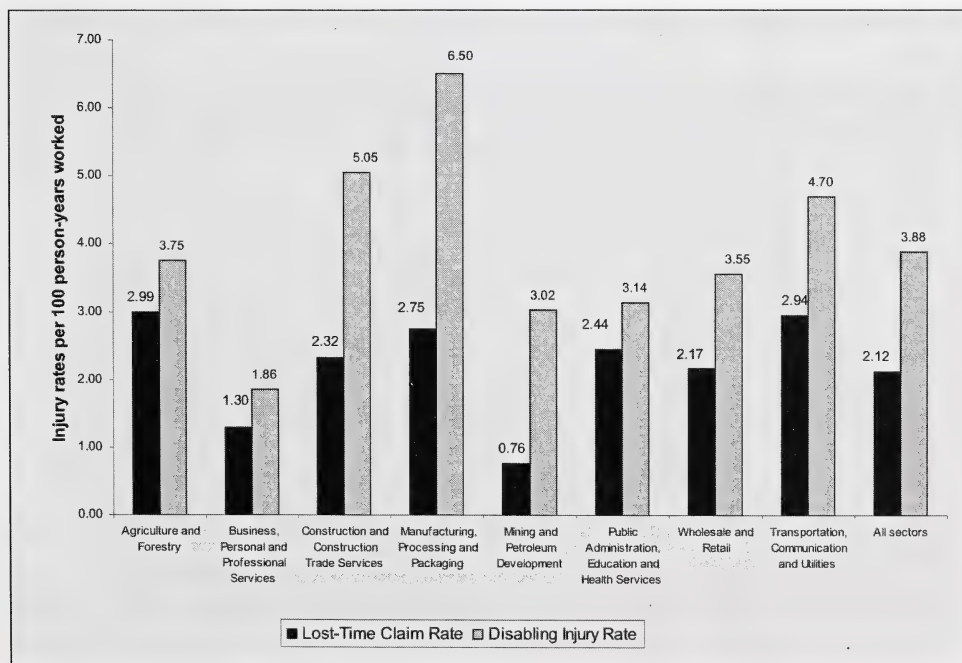
INDUSTRY SECTOR SUMMARY

The Manufacturing, Processing and Packaging sector and the Construction and Construction Trade Services sector had the highest risk of occupational injury and disease.

The risk of occupational injury and disease varies significantly by industry sector and sub-sector. Chart 4.1 presents the lost-time claim and disabling injury rates by major industry sector. The Manufacturing, Processing and Packaging sector and the Construction and Construction Trade Services sector had the highest disabling injury rates in 2007, at 6.50 and 5.05 per 100 person-years worked. The Agriculture and Forestry sector and Transportation, Communication and Utilities sector had the highest lost-time claim rates at 2.99 and 2.94 per 100 person-years worked.

Chart 4.1

Lost-Time Claims and Disabling Injury Rates, by major industry sector - Alberta: 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation

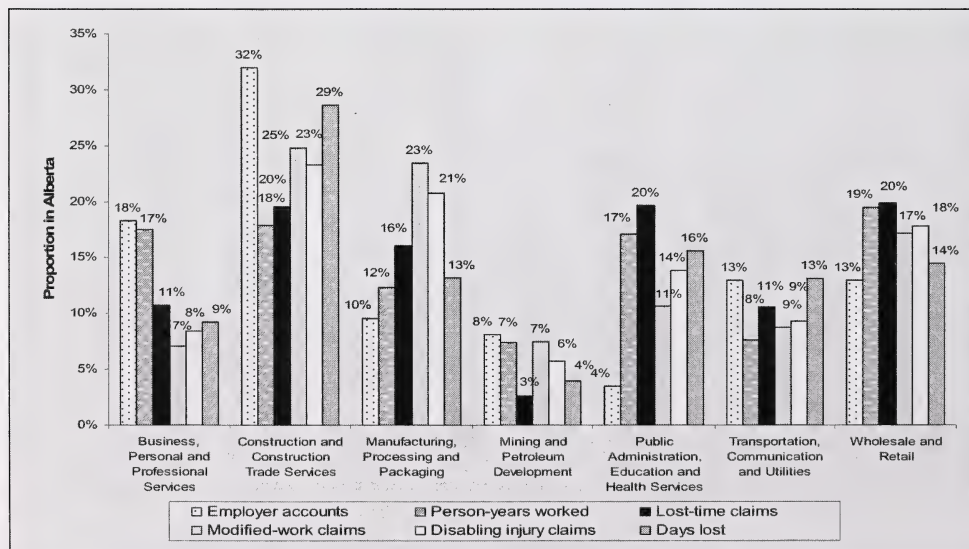
The Business, Personal and Professional Services sector had the lowest disabling injury rate at 1.86 per 100 person-years worked and the Mining and Petroleum Development sector had the lowest lost-time claim rate at 0.76 per 100 person-years worked.

Chart 4.2 presents information on the proportion of employer accounts, person-years worked, injury claims and days-lost for each major industry sector in Alberta. It is useful to understand the industry size and employer composition in each sector, alongside information on the types of injury claims submitted.

The Manufacturing, Processing and Packaging sector represented 10% of employers and 12% of workers in 2007, yet accounted for 16%, 23% and 21% of the lost-time, modified work and disabling injury claims. The Construction and Construction Trade Services sector contained 32% of employers and 18% of workers covered, yet had 20% of the lost-time claims, 25% of the modified work claims and 23% of the total disabling injury claims. The Construction and Construction Trade Services sector had a high proportion of days-lost (for claimants with lost-time) at 29%, reflecting longer recovery times required for workers to be medically able to return to work in this sector.

Chart 4.2

Proportion each Major Industry Sector⁵ comprises of Employer Accounts, Total Person-years worked, Lost-Time Claims, Modified Work Claims, Disabling Injury Claims and Days-Lost - Alberta 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation

⁵ Agriculture and Forestry are removed from this analysis as they represent less than 1% of workers and claims.

The Transportation, Communication and Utilities sector also had higher proportions of lost-time claims than workers covered, and higher proportions of modified work and disabling injury claims, although by a lesser amount. The Mining and Petroleum Development sector had a lower proportion of lost-time claims submitted than persons covered, but a similar proportion of modified work and disabling injury claims.

In contrast, the Business, Personal and Professional Services sector and the Wholesale and Retail sector submitted similar or lower proportions of lost-time, modified work and disabling injury claims to workers covered in these sectors.

The variations presented here likely reflect the different types of work occurring in these sectors and the different types of injuries. It also reflects different working and reporting practices of employers operating within these industries.

Distribution of Injury Claims

Table 4.1 presents figures for the proportion of employers without lost-time or disabling injury claims in 2007, by major industry sector. Table 4.2 displays figures on the proportion of the person-years worked accounted for by employers with no lost-time or disabling injury claims. Table 4.3 displays figures for the proportion of claims submitted by employers.

Table 4.1
Proportion of Employers with no Lost-Time or Disabling Injury Claims, by Major Industry Sector - Alberta: 2007

Proportion of Employers by Industry Sector	With no Lost-Time Claims	With no Disabling Injury Claims
Alberta	93%	91%
Agriculture and Forestry	95%	94%
Business, Personal and Professional Services	94%	94%
Construction and Construction Trade Services	93%	91%
Mining and Petroleum Development	88%	86%
Manufacturing, Processing and Packaging	97%	96%
Public Administration, Education and Health Services	86%	84%
Transportation, Communication, and Utilities	94%	94%
Wholesale and Retail	90%	89%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Four industry sectors had higher proportions of employers with no lost-time or disabling injury claims than the provincial average, indicating a more highly concentrated occurrence of injury in those sectors. These were the Agriculture and Forestry sector, the Business, Personal and Professional Services sector, the Manufacturing, Processing and Packaging sector and the Transportation, Utilities

and Communications sector (see Table 4.1). These figures however, are influenced by employer size. In 2007, the number of employers with no lost-time claims translates to 69%, 53%, 31% and 34% of the total person-years worked in these sectors respectively (see Table 4.2).

The Public Administration, Education and Health Services sector had the lowest proportion of employers with no lost-time or disabling injury claims, 86% and 84%, although the proportion of employers with no lost-time or disabling injury claims translates to 12% and 10% of the total person-years worked in this sector.

Table 4.2

Proportion of Person-years worked accounted for by Employers with no Lost-Time or Disabling Injury Claims, by Major Industry Sector - Alberta: 2007

Proportion of person-years accounted for by employers	With no Lost-Time Claims	With no Disabling Injury Claims
Alberta	36%	30%
Agriculture and Forestry	69%	66%
Business, Personal and Professional Services	53%	48%
Construction and Construction Trade Services	45%	35%
Mining and Petroleum Development	31%	22%
Manufacturing, Processing and Packaging	31%	24%
Public Administration, Education and Health Services	12%	10%
Transportation, Communication, and Utilities	34%	29%
Wholesale and Retail	40%	35%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers with submitted claims, the Public Administration, Education and Health Services sector, the Manufacturing, Processing and Packaging sector and the Mining and Petroleum Development sector had the highest proportions submitting over six claims each. The Agriculture and Forestry sector, Construction and Construction Trade Services sector and the Transportation, Communication, and Utilities sector contained the highest proportion of employers with either one lost-time or one disabling injury claim submitted (see Table 4.3). This is partly a reflection of the risks of working in these sectors, but it is also influenced by the number and size of employers in this sector.

Table 4.3
Proportion of Employers with Claims, by Major Industry Sector
- Alberta: 2007

Major Industry Sector	1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
Agriculture and Forestry	80%	17%	3%	0%
Business, Personal and Professional Services	68%	24%	7%	1%
Construction and Construction Trade Services	68%	27%	5%	0%
Manufacturing, Processing and Packaging	50%	39%	10%	2%
Mining and Petroleum Development	58%	31%	9%	1%
Public Administration, Education and Health Services	37%	38%	18%	7%
Transportation, Communication, and Utilities	64%	28%	6%	2%
Wholesale and Retail	60%	32%	6%	2%
Major Industry Sector	1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
Agriculture and Forestry	75%	22%	4%	0%
Business, Personal and Professional Services	64%	26%	7%	2%
Construction and Construction Trade Services	60%	29%	9%	2%
Manufacturing, Processing and Packaging	42%	36%	17%	5%
Mining and Petroleum Development	44%	32%	17%	7%
Public Administration, Education and Health Services	36%	36%	21%	8%
Transportation, Communication, and Utilities	61%	27%	9%	4%
Wholesale and Retail	56%	32%	9%	3%

Data source: WCB data, Prepared by Data Development and Evaluation

INDUSTRY SECTOR ANALYSIS

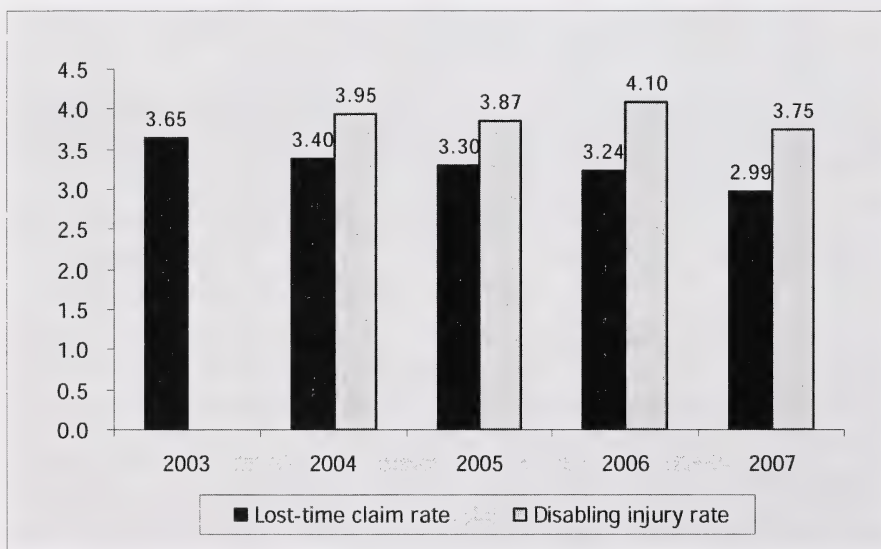
The risk of occupational injury and disease varies significantly by major industry sector as presented in Section 4. The following section presents a more in-depth breakdown of each major industry sector and sub-sectors.

Agriculture and Forestry

The Agriculture and Forestry sector includes vegetable farms, mushroom farms, apiaries, commercial hatcheries, feedlots, custom harvesting and baling, timber management and logging and related woodlands operations including the trucking of logs. Secondary processing, such as sawmills and pulp mills, are included in the Manufacturing, Processing and Packaging sector.

Chart 5.1

Agriculture and Forestry - Injury Rates: 2003-2007⁶



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2007, the Agriculture and Forestry sector had lost-time claim and duration rates that were the highest of all sectors, at 2.99 per 100 person-years worked and 142 days per

⁶ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

100 person-years worked, indicating a higher risk of injury requiring time away from work and longer recovery times from injury (see Charts 4.1, 4.2, 5.1 and Table 5.1). The disabling injury rate for this sector was 3.75 per 100 person-years worked, close to the provincial rate of 3.88.

In 2007, the Agriculture and Forestry sector lost-time claim rate decreased by 8.0% to 2.99 per 100 person-years worked from 2006, and by 18.3% since 2003. The fall in the lost-time claim rate over the last five years is largely the result of a decrease in the number of injury claims. The person-years worked estimates increased by 1.6%, whereas the number of lost-time claims has decreased by 16.9%. The decrease in the lost-time claim rate in this sector is less than the average decrease seen for all sectors in the province since 2003, 23.7%. Since 2004, the disabling injury rate has decreased by 4.9% compared to a decrease of 3.0% for all sectors in the province.

In 2007, the number of lost-time claims decreased by 6.9% to 299 claims and the number of disabling injury claims decreased by 7.4% to 376. The number of modified work claims decreased by a smaller amount, 0.6% to 155, indicating an increase in the lost-time claims involving modified work. This can be indicative of improving claims management in the sector with injured workers returning to work earlier on modified duties after time lost due to injury or being given modified duties prior to time lost. Agriculture in Alberta is largely exempt from mandatory coverage with the WCB and figures are based on WCB covered employers (i.e. very few dairy farms, grain farms and ranches have WCB coverage for their workers). Other sources of information are available for this sector. The Farm Accident Monitoring System (FAMS) is one method used to record these injuries occurring on farm sites (see Note 5.1). The Department of Agriculture and Rural Development produces these figures.

Of the injury claims submitted to the WCB, men accounted for over three-quarters of the total claims in this sector, 81.7% of lost-time claims and 79.0% of disabling injury claims. Men were injured at a higher rate than women when compared to the proportion of employment, with women accounting for 30.5% of those employed compared to 69.5% for men.⁷

Note 5.1

The Alberta Associates of Safe Rural Environments received reports for 950 injuries occurring on farm sites in 2007.

Highlights:

- **Over three-quarters of the cases involved males.**
- **39% were caused by livestock.**
- **14% of the cases were under the age of 18.**
- **The highest number of incidents was reported in the month of May (177 cases or 15%).**
- **Of the days of the week, the highest number of incidents occurred on a Monday.**

(FAMS: 2007 Farm Injury Report, March 2008).

⁷ Statistics Canada's Labour Force Survey (2007 Historical Review) for Agriculture and Forestry and Logging with Support Activities industries. For more information, see Appendix A.

Young workers (those aged 15 to 24) accounted for 15.1% of the lost-time claims and 17.6% of the disabling injury claims, while comprising 11.9% of those in employment in 2007 (see Table 6.2). Just under half of all the disabling injury claims in this sector were from truck drivers, general farm workers and logging and forestry labourers, representing 19.7%, 17.6% and 12.5% of disabling injury claims respectively.

The most common nature of injury for disabling injury claims in this sector were sprains, strains and tears, accounting for 33.8% of claims, followed by fractures and dislocations, 18.1%. The back (including the spine and spinal cord) was the most commonly injured body part in this sector, 16.0%, followed by other trunk (for example, shoulder or chest), 13.6%. Injuries to the legs accounted for 12.5% of disabling injury claims and injuries to ankles and feet, 11.7%.

The highest event types resulting in disabling injury in this sector were being struck by objects, accounting for 13.6% of all claims in this sector, falls (on the same level) and transportation accidents, both at 12.0%, and bodily reactions (for example, bending, climbing, slipping etc.) at 10.6%. The most common sources of disabling injury claims were contact with structures and surfaces, 19.9%, and person-injured or ill worker (self-injury or self-induced bodily motion injuries), 16.8%.

The median days-lost due to injuries and diseases for the Agriculture and Forestry sector increased to 21 days in 2007 from 18 in 2006. The average days-lost also increased in 2007 to 48 days per claim, from 41 in 2006. The duration rate increased to 142 per 100 person-years worked in 2007, from 132 in 2006. The median days-lost, average days-lost and the duration rate for this sector were the highest in the province.

Sub-Sector Analysis:

- In 2007, both the Agriculture and Forestry sub-sectors had lost-time claim rates and duration rates greater than the provincial average of 2.12 per 100 person-years worked and 48 days-lost per 100 person-years worked. Disabling injury rates in Agriculture sub-sector were lower than the provincial rate of 3.88 per 100 person-years worked, at 3.37 per 100 person-years worked, although higher in the Forestry sub-sector at 4.16.
- In 2007, the lost-time claim rate in the Agriculture sub-sector decreased by 18.8% to 2.71 per 100 person-years worked. For Forestry, it increased by 4.5% as the number of lost-time claims rose by 8.2% while person-years worked increased by 3.5%.
- Over the last five years the decrease in the lost-time claim rate in the Agriculture and Forestry sub-sectors is largely a result of the decrease in lost-time claims. Agriculture displayed a decrease in lost-time claims of 21.3% and Forestry 12.6%. Person-years worked estimates for the Agriculture sub-sector decreased by 0.7%. For the Forestry sub-sector, person-years worked increased by 4.2%.

- In 2007, the disabling injury rate decreased in the Agriculture sub-sector by 2.5% to 4.07 per 100 person-years worked. This is a result of the decrease in claims. The Forestry sub-sector recorded a 0.6% increase in the disabling injury rate, to 4.16 per 100 person-years worked, a result of the number of claims rising at a greater rate than the person-years worked.
- The duration rate for the Agriculture sub-sector decreased by 25.8% to 90 days-lost per 100 person-years worked, compared to an increase of 36.9% in the Forestry sub-sector, to 198 days-lost per 100 person-years worked (see Table 5.1).

Table 5.1
Agriculture and Forestry Sector - Alberta: 2006 and 2007

Industry Sector		2006	2007	% Change
Agriculture and Forestry	Estimated person-years worked	9,896	10,016	1.2%
	Lost-time claims	321	299	-6.9%
	Lost-time claim rate	3.24	2.99	-8.0%
	Modified-work claims	156	155	-0.6%
	Disabling injury claims	406	376	-7.4%
	Disabling injury rate	4.10	3.75	-8.5%
	Duration Rate	132	142	7.5%
Sub-Sector		2006	2007	% Change
Agriculture	Estimated person-years worked	5,204	5,160	-0.8%
	Lost-time claims	174	140	-19.5%
	Lost-time claim rate	3.34	2.71	-18.8%
	Modified-work claims	82	87	6.1%
	Disabling injury claims	212	174	-17.9%
	Disabling injury rate	4.07	3.37	-17.2%
	Duration Rate	121	90	-25.8%
Forestry	Estimated person-years worked	4,692	4,856	3.5%
	Lost-time claims	147	159	8.2%
	Lost-time claim rate	3.13	3.27	4.5%
	Modified-work claims	74	68	-8.1%
	Disabling injury claims	194	202	4.1%
	Disabling injury rate	4.14	4.16	0.6%
	Duration Rate	144	198	36.9%

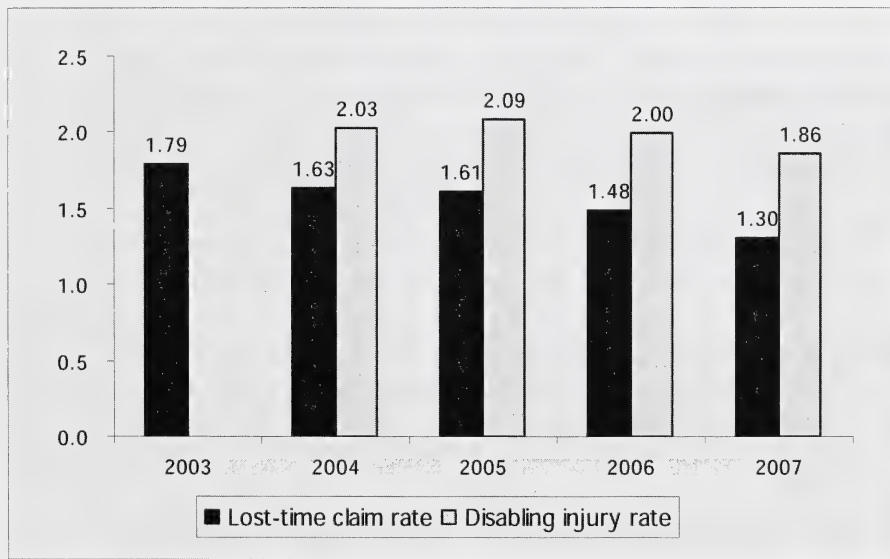
Data Source: WCB Data, Prepared by Data Development and Evaluation

Business, Personal and Professional Services

The Business, Personal and Professional Services sector includes building and grounds maintenance, financial, real estate and insurance services, office labour services, engineering, architectural and research services, restaurant, hotel and recreation services, security services, private health and social services, and veterinary services.

Chart 5.2

Business, Personal and Professional Services Sector⁸ - Injury Rates: 2003-2007⁹



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2007, the lost-time claim rate for this sector was the second lowest of all sectors in the province at 1.30 per 100 person-years worked. It was also the sector with the lowest disabling injury rate at 1.86 per 100 person-years worked, and lowest duration rate, 25 days lost per 100 person-years worked.

The lost-time claim rate decreased by 12.1% in 2007. The total number of lost-time claims decreased by 10.2% to 3,666, while the number of person-years worked

⁸ In 2007, industry 82800 (Seniors' Supportive Living/Lodges) was reclassified from the Business, Personal and Professional Services sector to the Public Administration, Education and Health sector. The injury rates presented in Chart 5.2 have been revised accordingly.

⁹ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

increased by 2.3% (see Chart 5.2 and Table 5.2). Since 2003, the lost-time claim rate has fallen by 27.2%, higher than the average decrease seen for all sectors in the province over the same time period, 23.7%. The disabling injury rate decreased by 6.7% in 2007, as proportionately there were fewer claims. Since 2004, the disabling injury rate has decreased by 8.1% compared to the decrease of 3.0% for all sectors in the province.

The number of modified work claims increased in 2007 by 9.6% to 3,021, while the number of disabling injury claims decreased by 4.6% to 5,244. The increase in modified work claims and decrease both in lost-time and disabling injury claims indicates improved claims management in the sector, with injured workers returning to work earlier on modified duties or being given modified duties prior to time lost due to injury.

Over half of the lost-time and disabling injury claims in the Business, Personal and Professional Services sector involved women, 56.6%, with women accounting for 50.7% of those in employment¹⁰. Young workers were injured at a higher rate in this sector than other age groups, accounting for 26.5% of lost-time and 28.1% of disabling injury claims while constituting 21.4% of employment (see Table 6.2). Over forty percent of disabling injury claims were from the following occupation groups: cooks, 12.6%, food counter attendants, 9.4%, janitors, caretakers and building superintendents, 8.3%, light duty cleaners, 6.2% and food and beverage servers, 5.7%.

The most common nature of injury for disabling injury claims in this sector were sprains, strains and tears, accounting for 42.8% of all claims, open wounds, 13.3% and burns, 7.5%. The back (including the spine and spinal cord) was the most common body part injured in this sector, 21.2%, followed by wrists and hands, 14.1%, and fingers, 11.9%.

The highest event types resulting in disabling injury in this sector were overexertion, 15.7%, falls (on the same level), 15.4%, and being struck by objects, 12.9%. The most common sources of disabling injury claims were contact with structures and surfaces, 20.8%, and person-injured or ill worker (self-injury or self-induced bodily motion injuries), 18.8%, and containers, 12.4%.

The median days-lost due to injuries and diseases for the Business, Personal and Professional Services sector decreased from seven to six in 2007, the average days-lost was 19 days per claim, down from 20 in 2006. The duration rate decreased to 25 days lost per 100 person-years worked in 2007, down from 30 in 2006.

¹⁰ Statistics Canada's Labour Force Survey (2007 Historical Review) for the Finance, Insurance, Real Estate and Leasing industry, the Professional, Scientific and Technical Services industry, the Business, Building and Other Support Services industry, Information, Culture and Recreation industry and the Accommodation and Food Services industry. For more information, see Appendix A.

Sub-Sector Analysis:

- A fall in lost-time claims in five sub-sectors and growth in person-year figures in eight of the nine sub-sectors caused the decrease in lost-time claim rates for this sector, as proportionately there were fewer claims.
- The two largest sub-sectors, Restaurant, Hotel and Recreation Services and Other Business, Personal and Professional Services, accounted for 45% and 19% of total person-years worked in 2007. These two sub-sectors saw a decrease in lost-time claim rate of 15.8% and 4.5% respectively, due to decreases in lost-time claims and growth in person-years worked.
- The lost-time and disabling injury claim rates of all sub-sectors were lower than the average rate for all sectors of the province (see Table 5.2) of 2.12 and 3.88 per 100 person-years worked.
- Only the Personal Services Maintenance sub-sector had a duration rate higher than the average rate for all sectors of the province, 50 days per 100 person-years worked, compared to the average for all sectors of the province, 48 days.

Table 5.2
Business, Personal and Professional Services Sector -
Alberta: 2006 and 2007

Industry Sector		2006	2007	% Change
Business, Personal and Professional Services	Estimated person-years worked	275,342	281,581	2.3%
	Lost-time claims	4,081	3,666	-10.2%
	Lost-time claim rate	1.48	1.30	-12.1%
	Modified-work claims	2,756	3,021	9.6%
	Disabling injury claims	5,494	5,244	-4.6%
	Disabling injury rate	2.00	1.86	-6.7%
	Duration rate	30	25	-16.9%
Sub-Sector		2006	2007	% Change
Animal Care Services	Estimated person-years worked	2,205	3,193	44.8%
	Lost-time claims	43	54	25.6%
	Lost-time claim rate	1.95	1.69	-13.3%
	Modified-work claims	23	37	60.9%
	Disabling injury claims	58	69	19.0%
	Disabling injury rate	2.63	2.16	-17.8%
	Duration rate	24	22	-10.2%
Building and Ground Maintenance	Estimated person-years worked	13,366	13,792	3.2%
	Lost-time claims	191	165	-13.6%
	Lost-time claim rate	1.43	1.20	-16.3%
	Modified-work claims	171	192	12.3%
	Disabling injury claims	290	280	-3.4%
	Disabling injury rate	2.17	2.03	-6.5%
	Duration rate	32	24	-24.5%
Engineering, Architectural, Designing and Research Services	Estimated person-years worked	46,011	43,808	-4.8%
	Lost-time claims	89	93	4.5%
	Lost-time claim rate	0.19	0.21	9.8%
	Modified-work claims	112	139	24.1%
	Disabling injury claims	163	190	16.6%
	Disabling injury rate	0.35	0.43	22.6%
	Duration rate	4	5	28.7%
Environmental Services	Estimated person-years worked	3,783	3,964	4.8%
	Lost-time claims	18	11	-38.9%
	Lost-time claim rate	0.48	0.28	-41.8%
	Modified-work claims	20	27	35.0%
	Disabling injury claims	34	31	-8.8%
	Disabling injury rate	0.90	0.78	-13.0%
	Duration rate*	N/A	N/A	N/A

Table 5.2 (continued)

Business, Personal and Professional Services Sector
- Alberta: 2006 and 2007

Sub-Sector		2006	2007	% Change
Personal Services-Maintenance	Estimated person-years worked	13,505	14,201	5.2%
	Lost-time claims	309	272	-12.0%
	Lost-time claim rate	2.29	1.92	-16.3%
	Modified-work claims	178	173	-2.8%
	Disabling injury claims	400	360	-10.0%
	Disabling injury rate	2.96	2.54	-14.4%
	Duration rate	71	50	-28.8%
Restaurant, Hotel and Recreation Services	Estimated person-years worked	123,400	126,889	2.8%
	Lost-time claims	2,805	2,430	-13.4%
	Lost-time claim rate	2.27	1.92	-15.8%
	Modified-work claims	1,914	1,993	4.1%
	Disabling injury claims	3,765	3,472	-7.8%
	Disabling injury rate	3.05	2.74	-10.3%
	Duration rate	45	36	-20.3%
Other Personal Services	Estimated person-years worked	12,233	12,808	4.7%
	Lost-time claims	205	212	3.4%
	Lost-time claim rate	1.68	1.66	-1.3%
	Modified-work claims	115	182	58.3%
	Disabling injury claims	262	286	9.2%
	Disabling injury rate	2.14	2.23	4.2%
	Duration rate	28	25	-9.9%
Private Health Services and Seniors Accommodations	Estimated person-years worked	8,475	9,365	10.5%
	Lost-time claims	73	89	21.9%
	Lost-time claim rate	0.86	0.95	10.3%
	Modified-work claims	46	58	26.1%
	Disabling injury claims	95	111	16.8%
	Disabling injury rate	1.12	1.19	5.7%
	Duration rate	17	17	1.3%
Other	Estimated person-years worked	52,365	53,560	2.3%
	Lost-time claims	348	340	-2.3%
	Lost-time claim rate	0.67	0.64	-4.5%
	Modified-work claims	177	220	24.3%
	Disabling injury claims	427	445	4.2%
	Disabling injury rate	0.82	0.83	2.0%
	Duration rate	11	13	19.9%

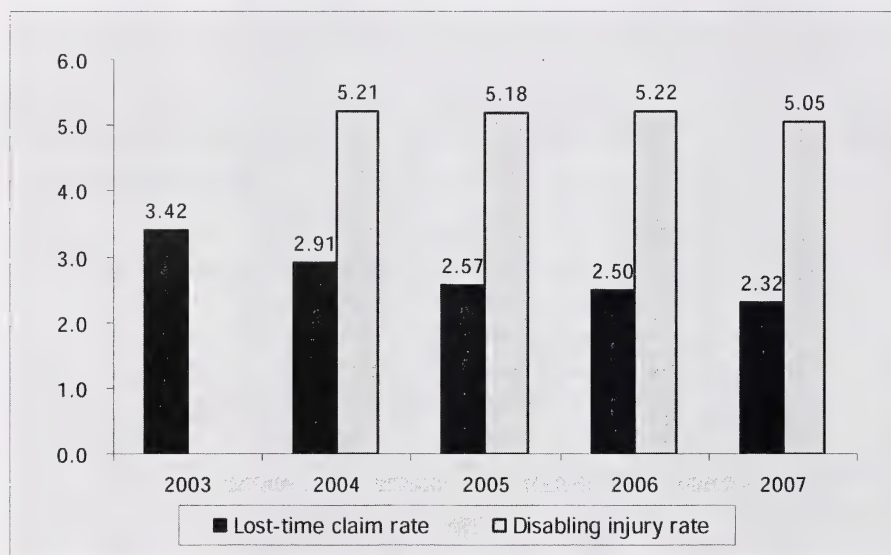
*Duration rates are not calculated when there are fewer than 30 lost-time claims.
 Data Source: WCB Data, Prepared by Data Development and Evaluation.

Construction and Construction Trade Services

The Construction and Construction Trade Services sector includes residential construction, industrial construction, road building, industrial labour and specialized construction trades such as roofing, plumbing, painting, electrical wiring, bricklaying and masonry.

Chart 5.3

Construction and Construction Trade Services Sector - Injury Rates: 2003-2007¹¹



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2007, the lost-time claim rate for this sector was the fourth lowest of all sectors in the province at 2.32 per 100 person-years worked. It was also the sector with the second highest disabling injury rate, 5.05 per 100 person-years worked.

In 2007, the lost-time claim rate decreased by 7.4%. The number of lost-time claims increased by 5.9% and the person-years worked increased by 14.4%, meaning that proportionately, there were fewer claims. Since 2003, the lost-time claim rate has fallen by 32.3%, a larger decrease than the average fall seen for all sectors in the province, 23.7%. The disabling injury rate in 2007 was 5.05 per 100 person-years

¹¹ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

worked a decrease of 3.4% from 2006 and 3.1% decrease compared to 2004 (see Chart 5.3).

The majority of claims in this sector were from men who accounted for 92.3% of lost-time claims and 92.7% of the disabling injury claims. Men represented 85.8% of those in employment.¹² Young workers aged 15 to 24 years accounted for 24.4% of lost-time claims, 25.4% of disabling injury claims and 18.4% of those in employment (see Table 6.2). By occupation, 18.7% of disabling injury claimants were construction trades helpers and labourers, 8.7% were carpenters, 6.2% were electricians (except industrial and power system electricians) and 4.0% were truck drivers.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 44.4% of all disabling injury claims, followed by surface wounds and bruises, 13.1%, and open wounds, 12.9%. The main parts of body injured were the back (including the spine and spinal cord), 20.1% and other trunk, 12.9%. Injuries to fingers and legs accounted for 11.6% and 11.5% of the disabling injury claims. Injuries to ankles and feet, and injuries to wrists and hands accounted for 10.8% and 10.6% of disabling injury claims.

The main sources of injury that resulted in disabling injury claims in this sector were parts and materials, 20.0%, person-injured or ill worker (self-injury or self-induced bodily motion injuries), 18.0%, and structures and surfaces, 17.8%. The main event types were struck by object and overexertion both at 17.1%, followed by bodily reaction, 14.4%.

The median days-lost due to injuries and diseases for the Construction and Construction Trade Services Sector dropped from 12 to 11; the average days-lost decreased to 33 days per claim from 34 in 2006. The duration rate was the third highest of all major sectors at 76 days lost per 100 person-years worked, although it decreased from 2006 by 10.2%.

Sub-Sector Analysis:

- In 2007, three of the five largest sub-sectors experienced higher growth in person-years worked than lost-time claims, meaning that proportionately, there were fewer injuries in these sub-sectors (see Table 5.3). These were the Industrial Construction sub-sector, the Construction Trade Services sub-sector, and the Roadbuilders sub-sector. The Other Construction and Construction Trade Services sub-sector displayed growth in person-years worked and a fall in lost-time claims while the Mechanical Electrical and Insulation sub-sector displayed growth in lost-time claims greater than growth in person-years worked.
- The lost-time claim rate was lower than the provincial rate in four sub-sectors:

¹² Statistics Canada's Labour Force Survey (2007 Historical Review) for the Construction industry. For more information, see Appendix A.

Scaffolders, Roadbuilders, Industrial Construction, and Other Construction and Construction Trade Services.

- Duration rates for all sub-sectors were greater than the provincial average of 48 days-lost per 100 person-years worked, with the exception of Mechanical, Electrical and Insulation with 47 days-lost per 100 person-years worked.
- The disabling injury rate was higher than the provincial average in all sub-sectors. Door and Glass Installation and Repair sub-sector had the highest rate at 8.98 per 100 person-years worked, followed by the Roofers sub-sector with 6.35 per 100 person-years worked.

Table 5.3

**Construction and Construction Trade Services Sector -
Alberta: 2006 and 2007**

Industry Sector		2006	2007	% Change
Construction and Construction Trade Services	Estimated person-years worked	252,602	288,946	14.4%
	Lost-time claims	6,320	6,691	5.9%
	Lost-time claim rate	2.50	2.32	-7.4%
	Modified-work claims	8,937	10,560	18.2%
	Disabling injury claims	13,196	14,580	10.5%
	Disabling injury rate	5.22	5.05	-3.4%
	Duration rate	85	76	-10.2%
Sub-Sector		2006	2007	% Change
Construction Trade Services	Estimated person-years worked	47,782	57,358	20.0%
	Lost-time claims	1,760	1,928	9.5%
	Lost-time claim rate	3.68	3.36	-8.7%
	Modified-work claims	867	1,181	36.2%
	Disabling injury claims	2,198	2,504	13.9%
	Disabling injury rate	4.60	4.37	-5.1%
	Duration rate	129	121	-6.7%
Doors and Glass Installation and Repair	Estimated person-years worked	8,929	9,565	7.1%
	Lost-time claims	315	328	4.1%
	Lost-time claim rate	3.53	3.43	-2.8%
	Modified-work claims	646	700	8.4%
	Disabling injury claims	806	859	6.6%
	Disabling injury rate	9.03	8.98	-0.5%
	Duration rate	60	65	8.7%
Industrial Construction	Estimated person-years worked	55,202	66,863	21.1%
	Lost-time claims	1,130	1,256	11.2%
	Lost-time claim rate	2.05	1.88	-8.3%
	Modified-work claims	2,813	3,381	20.2%
	Disabling injury claims	3,479	4,035	16.0%
	Disabling injury rate	6.30	6.04	-4.2%
	Duration rate	79	67	-15.2%
Mechanical, Electrical and Insulation	Estimated person-years worked	41,644	47,991	15.2%
	Lost-time claims	867	1,053	21.5%
	Lost-time claim rate	2.08	2.19	5.4%
	Modified-work claims	1,321	1,711	29.5%
	Disabling injury claims	1,912	2,351	23.0%
	Disabling injury rate	4.59	4.90	6.7%
	Duration rate	48	47	-3.7%

Table 5.3 (continued)
Construction and Construction Trade Services Sector -
Alberta: 2006 and 2007

Sub-Sector		2006	2007	% Change
Roadbuilders	Estimated person-years worked	37,287	42,657	14.4%
	Lost-time claims	793	856	7.9%
	Lost-time claim rate	2.13	2.01	-5.6%
	Modified-work claims	1,160	1,432	23.4%
	Disabling injury claims	1,688	1,933	14.5%
	Disabling injury rate	4.53	4.53	0.1%
	Duration rate	80	70	-11.6%
Roofers	Estimated person-years worked	5,320	6,554	23.2%
	Lost-time claims	258	256	-0.8%
	Lost-time claim rate	4.85	3.91	-19.5%
	Modified-work claims	161	222	37.9%
	Disabling injury claims	355	416	17.2%
	Disabling injury rate	6.67	6.35	-4.9%
	Duration rate	225	200	-10.8%
Scaffolders	Estimated person-years worked	3,292	3,825	16.2%
	Lost-time claims	41	22	-46.3%
	Lost-time claim rate	1.25	0.58	-53.8%
	Modified-work claims	310	217	-30.0%
	Disabling injury claims	325	225	-30.8%
	Disabling injury rate	9.87	5.88	-40.4%
	Duration rate	36	14	-61.4%
Other	Estimated person-years worked	53,145	54,133	1.9%
	Lost-time claims	1,156	992	-14.2%
	Lost-time claim rate	2.18	1.83	-15.7%
	Modified-work claims	1,659	1,716	3.4%
	Disabling injury claims	2,433	2,257	-7.2%
	Disabling injury rate	4.58	4.17	-8.9%
	Duration rate	75	61	-18.4%

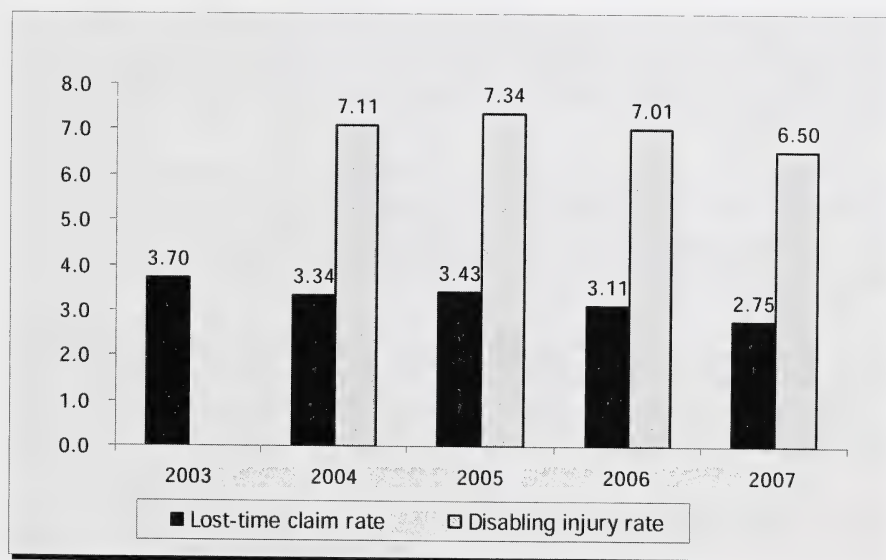
Data Source: WCB Data, Prepared by Data Development and Evaluation

Manufacturing, Processing and Packaging

The Manufacturing, Processing and Packaging sector includes meat, hides and pelts, clothing and textiles, food and beverage products, wood products, furniture and allied products, printing and publishing, rubber, clay and concrete products, metal foundries and products, instrumentation, fertilizer, petrochemical and plastic products and crude oil refining.

Chart 5.4

Manufacturing, Processing and Packaging Sector - Injury Rates: 2003-2007¹³



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2007, the lost-time claim rate for this sector was the third highest of all sectors in the province at 2.75 per 100 person-years worked. It was also the sector with the highest disabling injury rate, 6.50 per 100 person-years worked (see Chart 4.1).

The lost-time claim rate for the Manufacturing, Processing and Packaging sector decreased in 2007 by 11.5% from 2006, as proportionately there were fewer injury claims. The number of lost-time claims decreased by 15.0% to 5,490 and the person-years worked estimates decreased by 4.0% (see Table 5.4). Over the last five years, this sector has seen a fall in the lost-time claim rate of 25.5% compared to the

¹³ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

average fall for all sectors in the province, 23.7%. The disabling injury rate in 2007 was 6.50 per 100 person-years worked, a 7.3% fall from 2006.

In 2007, young workers accounted for 18.1% of lost-time claims, 21.1% of disabling injury claims and only 13.6% of those in employment¹⁴ (see Table 6.2). Men accounted for 82.5% of the total lost-time claims, 83.1% of disabling injury claims, while comprising 74.2% of those in employment. Welders and related machine operators experienced the largest number of injuries and diseases in this sector by occupation, with 12.0% of disabling injury claims, followed by industrial butchers, meat cutters and poultry preparers, 7.0%, and labourers in food, beverage and tobacco processing, 6.9%. Other occupations involving labourers also featured prominently. Construction trades helpers and labourers accounted for 6.4% of disabling injury claims, other labourers in processing, manufacturing and utilities, 5.8%, other trades helpers and labourers, 3.4%, labourers in metal fabrication, 1.6%, labourers in wood, pulp and paper processing, 1.5%, and labourers in mineral and metal processing, 0.7%.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 39.4% of the disabling injury claims in this sector, followed by surface wounds and bruises, 16.1%, and open wounds 15.0%. The main parts of body injured were the back (including the spine and spinal cord), 19.3%, and other trunk, 12.6%. Injuries to fingers and fingernails accounted for 12.6%.

The main sources of injury that resulted in disabling injury claims were parts and materials, 20.2%, person-injured or ill worker (self-injury or self-induced bodily motion injuries), 19.1%, followed by structures and surfaces, 10.6%. The main event types were struck by object, 19.7%, overexertion both at 19.0%, and bodily reaction, 10.5%.

The lost-time claim and disabling injury rates continued to be some of the highest of all industry sectors while the median days-lost, five, and the average days-lost, 18, were the lowest in the province. The duration rate was 51 days lost per 100 person-years worked, higher than the average for all sectors of the province, 48.

Sub-Sector Analysis:

- In 2007, the largest sub-sector, Primary Metal Products, accounting for 36% of the person-years worked in the Manufacturing, Processing and Packaging sector, displayed a decrease in lost-time claims of 18.4% despite showing 3.1% growth in person-years worked.
- Other large sub-sectors, the Wood Products sub-sector, the Feed, Seed, Food and Beverage Products sub-sector and the Meat, Hides and Pelt Products sub-sector, either displayed a similar trend to the Primary Metal Products sub-sector or showed a decrease in lost-time claims that was greater than the

¹⁴ Statistics Canada's Labour Force Survey (2007 Historical Review) for the Manufacturing industry. For more information see Appendix A.

decrease in person-years worked, meaning that proportionately there were fewer lost-time claims in these sub-sectors.

- The lost-time claim and disabling injury rates were lower than the provincial rate for five sub-sectors: Gases, Fertilizer, Petrochemicals, Refining and Manufacturing sub-sector, Industrial Equipment sub-sector, Printed and Published Products sub-sector, Clothing and Textile Products sub-sector, and the Other Manufacturing, Processing and Packaging sub-sector.
- The Meat, Hides and Pelt Products sub-sector displays the highest disabling injury rates of all the sub-sectors in Manufacturing, Processing and Packaging, and also one of the highest provincially. In 2007, its disabling injury rate was 17.08 per 100 person-years worked, over four times higher than the average for all sub-sectors in the province. Its lost-time claim rate was approximately two and half times greater than the average for all sub-sectors in the province.

Table 5.4
Manufacturing, Processing and Packaging Sector - Alberta:
2006 and 2007

Industry Sector		2006	2007	% Change
Manufacturing, Processing and Packaging	Estimated person-years worked	207,563	199,357	-4.0%
	Lost-time claims	6,460	5,490	-15.0%
	Lost-time claim rate	3.11	2.75	-11.5%
	Modified-work claims	10,747	9,961	-7.3%
	Disabling injury claims	14,559	12,963	-11.0%
	Disabling injury rate	7.01	6.50	-7.3%
	Duration rate	54	51	-5.6%
Sub-Sector		2006	2007	% Change
Clothing and Textile Products	Estimated person-years worked	3,661	3,427	-6.4%
	Lost-time claims	60	38	-36.7%
	Lost-time claim rate	1.64	1.11	-32.3%
	Modified-work claims	29	21	-27.6%
	Disabling injury claims	68	50	-26.5%
	Disabling injury rate	1.86	1.46	-21.4%
	Duration rate	31	29	-5.0%
Feed, Seed, Food and Beverage Products	Estimated person-years worked	15,664	16,109	2.8%
	Lost-time claims	641	555	-13.4%
	Lost-time claim rate	4.09	3.45	-15.8%
	Modified-work claims	800	777	-2.9%
	Disabling injury claims	1,115	1,026	-8.0%
	Disabling injury rate	7.12	6.37	-10.5%
	Duration rate	65	54	-15.8%
Foundries (not Steel), Rubber and Nonmetallic Products	Estimated person-years worked	9,302	10,438	12.2%
	Lost-time claims	301	278	-7.6%
	Lost-time claim rate	3.24	2.66	-17.7%
	Modified-work claims	572	538	-5.9%
	Disabling injury claims	752	683	-9.2%
	Disabling injury rate	8.08	6.54	-19.0%
	Duration rate	68	54	-20.0%
Furniture and Allied Products	Estimated person-years worked	3,277	3,229	-1.5%
	Lost-time claims	150	147	-2.0%
	Lost-time claim rate	4.58	4.55	-0.5%
	Modified-work claims	141	132	-6.4%
	Disabling injury claims	241	211	-12.4%
	Disabling injury rate	7.36	6.54	-11.1%
	Duration rate	95	118	24.0%

Table 5.4 (continued)

**Manufacturing, Processing and Packaging Sector - Alberta:
2006 and 2007**

Sub-Sector		2006	2007	% Change
Gases, Fertilizer, Petrochemicals Refining and Manufacturing	Estimated person-years worked	17,497	9,446	-46.0%
	Lost-time claims	32	35	9.4%
	Lost-time claim rate	0.18	0.37	102.7%
	Modified-work claims	82	86	4.9%
	Disabling injury claims	105	102	-2.9%
	Disabling injury rate	0.60	1.08	80.0%
	Duration rate	3	6	83.3%
Industrial Equipment	Estimated person-years worked	12,673	11,960	-5.6%
	Lost-time claims	173	140	-19.1%
	Lost-time claim rate	1.37	1.17	-14.2%
	Modified-work claims	413	332	-19.6%
	Disabling injury claims	514	413	-19.6%
	Disabling injury rate	4.06	3.45	-14.9%
	Duration rate	18	19	3.5%
Meat, Hides and Pelt Products	Estimated person-years worked	13,753	13,079	-4.9%
	Lost-time claims	958	680	-29.0%
	Lost-time claim rate	6.97	5.20	-25.4%
	Modified-work claims	2,575	1,971	-23.5%
	Disabling injury claims	2,960	2,234	-24.5%
	Disabling injury rate	21.52	17.08	-20.6%
	Duration rate	102	71	-30.4%
Plastic Products	Estimated person-years worked	4,803	4,433	-7.7%
	Lost-time claims	146	104	-28.8%
	Lost-time claim rate	3.04	2.35	-22.8%
	Modified-work claims	251	242	-3.6%
	Disabling injury claims	329	297	-9.7%
	Disabling injury rate	6.85	6.70	-2.2%
	Duration rate	48	28	-41.3%
Primary Metal (esp. Steel) Products	Estimated person-years worked	70,052	72,219	3.1%
	Lost-time claims	2,565	2,092	-18.4%
	Lost-time claim rate	3.66	2.90	-20.9%
	Modified-work claims	3,629	3,474	-4.3%
	Disabling injury claims	5,344	4,754	-11.0%
	Disabling injury rate	7.63	6.58	-13.7%
	Duration rate	64	55	-13.7%

Table 5.4 (continued)

**Manufacturing, Processing and Packaging Sector - Alberta:
2006 and 2007**

Sub-Sector		2006	2007	% Change
Printed and Published Products	Estimated person-years worked	13,892	13,755	-1.0%
	Lost-time claims	185	198	7.0%
	Lost-time claim rate	1.33	1.44	8.0%
	Modified-work claims	174	174	0.0%
	Disabling injury claims	313	301	-3.8%
	Disabling injury rate	2.25	2.19	-2.9%
	Duration rate	32	36	10.6%
Wood Products	Estimated person-years worked	28,519	28,238	-1.0%
	Lost-time claims	1,025	999	-2.5%
	Lost-time claim rate	3.59	3.54	-1.6%
	Modified-work claims	1,896	1,994	5.2%
	Disabling injury claims	2,483	2,539	2.3%
	Disabling injury rate	8.71	8.99	3.3%
	Duration rate	65	64	-2.4%
Other	Estimated person-years worked	14,470	13,024	-10.0%
	Lost-time claims	224	224	0.0%
	Lost-time claim rate	1.55	1.72	11.1%
	Modified-work claims	185	220	18.9%
	Disabling injury claims	335	353	5.4%
	Disabling injury rate	2.32	2.71	17.1%
	Duration rate	28	46	63.7%

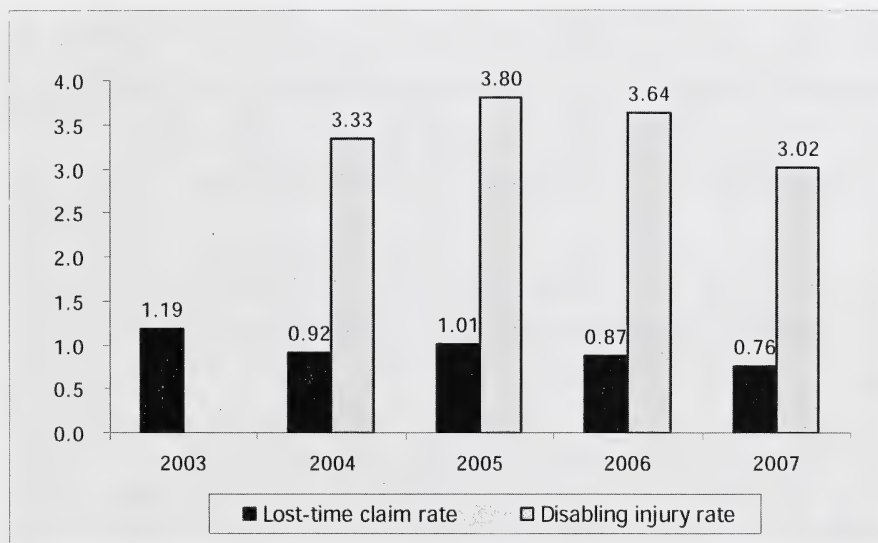
Data Source: WCB Data, Prepared by Data Development and Evaluation

Mining and Petroleum Development

The Mining and Petroleum Development sector includes underground mining, open pit mining, mining and processing of oilsands, oil or gas pipeline transmission and upstream oil and gas industries such as seismic exploration, drilling of wells, well servicing with service rigs, oilfield downhole services and upstream production. Secondary processing activities, such as oil refineries and petrochemical manufacturing are included in the Manufacturing, Processing and Packaging sector.

Chart 5.5

Mining and Petroleum Development Sector - Injury Rates: 2003-2007¹⁵



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2007, the lost-time claim rate for this sector was the lowest of all sectors in the province at 0.76 per 100 person-years worked. It was also the sector with the second lowest disabling injury rate, 3.02 per 100 person-years worked (see Chart 4.1).

The lost-time claim rate decreased by 12.1% in 2007, a result of lost-time claims decreasing by 12.7% and person-years worked decreasing by 0.6% from 2006. Since 2003, the lost-time claim rate has fallen by 36.4%, greater than the average decrease for all sectors of the province, 23.7%. The disabling injury rate decreased in

¹⁵ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

2007 by 17.0%, a result of a 17.5% decrease in the number of disabling injury claims.

The greatest proportion of lost-time and disabling injury claims involved men, both 94.6%. In 2007, men accounted for 76.1% of those in employment.¹⁶ Women, on the other hand, accounted for 5.4% of the lost-time and disabling injury claims and 23.9% of those in employment. This separation is likely due to occupational differences between the genders in this industry.

Young workers accounted for 20.9% of lost-time claims, 26.9% of disabling injury claims yet only 14.2% of employment¹⁷ (see Table 6.2). By occupation group, oil and gas drilling, servicing and related labourers accounted for 26.1% of disabling injury claims, and oil and gas well drilling workers and services operators at 10.1%. This was followed by heavy equipment operators (except crane), 8.0%, and oil and gas well drillers, servicers, testers and related workers, 7.0%.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 41.2% of disabling injury claims, followed by surface wounds and bruises, 14.5%, and other traumatic injuries and diseases, 13.4%. The main parts of body injured were the back (including the spine and spinal cord), 18.4%, and fingers and fingernails, 14.6%.

The main sources of injury that resulted in disabling injury claims were parts and materials, 18.6%, person-injured or ill worker (self-injury or self-induced bodily motion injuries), 17.4%, followed by structures and surfaces, 13.5%. The main event type was struck by object, 15.3%. This was followed by bodily reaction, 14.2%, and overexertion, 13.8%.

The median days-lost due to injuries and diseases for the Mining and Petroleum Development sector dropped from 15 to 12 days. The average days-lost was 33 days per claim, down from 37 in 2006. The duration rate for this sector was 25 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 48 days lost per 100 person-years worked.

Sub-Sector Analysis:

- In 2007, the largest sub-sector, Petroleum Producers and Exploration, accounting for 42% of the person-years worked in the Mining and Petroleum Development sector, displayed a decrease in the lost-time claim and disabling injury rates, 5.6% and 17.3% respectively, as proportionately there were fewer claims. This was a result of a 12.2% increase in person-years worked. Lost-time claims increased by 5.9% and disabling injury claims decreased by 7.2%.
- Four sub-sectors had lost-time claim and disabling injury rates lower than the provincial level; the Mining and Processing Other Than Coal Mining sub-

¹⁶ Statistics Canada's Labour Force Survey (2007 Historical Review) for the Mining and Oil and Gas Extraction industry. For more information, see Appendix A.

¹⁷ Statistics Canada's Labour Force Survey (2007 Historical Review). For more information see Appendix A.

sector, the Petroleum Producer and Exploration sub-sector, the Pipeline Cleaning and Transmission sub-sector and the Other Mining and Petroleum sub-sector.

- Three sub-sectors had lower lost-time claim rates than the average rates for all sectors in the province, but higher disabling injury rates. These sub-sectors were Coal Mining, Drilling Services, and Oilfield Services.
- Person-years worked remained similar in 2007 for the sector as a whole but the change from 2006 varied throughout the sub-sectors. The percentage change range fluctuated from a decrease of 20.0% in the Mining and Petroleum sub-sector to an increase of 15.1% in the Pipeline Cleaning and Transmission sub-sector.
- Duration rates were lower in all sub-sectors than the average for all sectors in the province, with the exception of the Drilling Services sub-sector. In 2007, this sub-sector had a duration rate of 82 days lost per 100 person-years worked.

Table 5.5
Mining and Petroleum Development Sector - Alberta: 2006
and 2007

Industry Sector		2006	2007	% Change
Mining and Petroleum Development	Estimated person-years worked	119,967	119,274	-0.6%
	Lost-time claims	1,038	906	-12.7%
	Lost-time claim rate	0.87	0.76	-12.1%
	Modified-work claims	3,861	3,175	-17.8%
	Disabling injury claims	4,364	3,601	-17.5%
	Disabling injury rate	3.64	3.02	-17.0%
	Duration rate	32	25	-20.2%
Sub-Sector		2006	2007	% Change
Coal Mining	Estimated person-years worked	3,630	4,052	11.6%
	Lost-time claims	49	48	-2.0%
	Lost-time claim rate	1.35	1.18	-12.3%
	Modified-work claims	187	218	16.6%
	Disabling injury claims	210	245	16.7%
	Disabling injury rate	5.79	6.05	4.5%
	Duration rate	44	40	-9.2%
Drilling Services	Estimated person-years worked	14,772	13,102	-11.3%
	Lost-time claims	334	243	-27.2%
	Lost-time claim rate	2.26	1.86	-18.0%
	Modified-work claims	1,231	766	-37.8%
	Disabling injury claims	1,381	873	-36.8%
	Disabling injury rate	9.35	6.66	-28.7%
	Duration rate	100	82	-18.5%
Mining and Processing Other Than Coal Mining	Estimated person-years worked	15,001	12,123	-19.2%
	Lost-time claims	52	54	3.8%
	Lost-time claim rate	0.35	0.45	28.2%
	Modified-work claims	301	405	34.6%
	Disabling injury claims	328	431	31.4%
	Disabling injury rate	2.19	3.56	62.6%
	Duration rate	7	8	14.0%
Oilfield Services	Estimated person-years worked	30,662	27,570	-10.1%
	Lost-time claims	390	354	-9.2%
	Lost-time claim rate	1.27	1.28	0.9%
	Modified-work claims	1,587	1,304	-17.8%
	Disabling injury claims	1,753	1,445	-17.6%
	Disabling injury rate	5.72	5.24	-8.3%
	Duration rate	42	39	-7.2%

Table 5.5 (continued)

Mining and Petroleum Development Sector - Alberta: 2006 and 2007

Sub-Sector		2006	2007	% Change
Petroleum Producers and Exploration	Estimated person-years worked	44,711	50,153	12.2%
	Lost-time claims	135	143	5.9%
	Lost-time claim rate	0.30	0.29	-5.6%
	Modified-work claims	430	390	-9.3%
	Disabling injury claims	514	477	-7.2%
	Disabling injury rate	1.15	0.95	-17.3%
	Duration rate	9	8	-11.6%
Pipeline Cleaning and Transmission	Estimated person-years worked	4,126	4,749	15.1%
	Lost-time claims	8	8	0.0%
	Lost-time claim rate	0.19	0.17	-13.4%
	Modified-work claims	8	10	25.0%
	Disabling injury claims	16	14	-12.5%
	Disabling injury rate	0.39	0.30	-24.0%
	Duration rate*	N/A	N/A	N/A
Other	Estimated person-years worked	7,064	7,525	6.5%
	Lost-time claims	70	56	-20.0%
	Lost-time claim rate	0.99	0.74	-24.9%
	Modified-work claims	117	82	-29.9%
	Disabling injury claims	162	116	-28.4%
	Disabling injury rate	2.29	1.54	-32.8%
	Duration rate	52	27	-47.9%

* Duration Rates are not calculated when there are fewer than 30 lost-time claims.

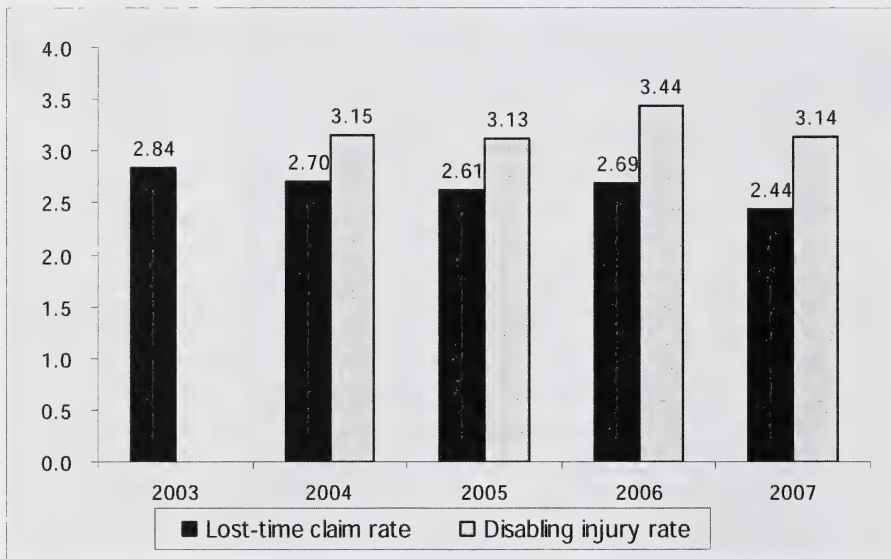
Data Source: WCB Data, Prepared by Data Development and Evaluation

Public Administration, Education and Health Services

Public Administration includes the Government of Alberta and its agencies and all forms of local government including cities (including fire-fighters and other emergency services), towns, villages and municipal districts. Education services include universities, colleges, business schools, driving schools, kindergartens, museums and libraries. Health services include health care centres, long term care facilities and home support services.

Chart 5.6

Public Administration, Education and Health Services Sector¹⁸ - Injury Rates: 2003-2007¹⁹



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2007, the lost-time claim rate for this sector was the fourth highest of all sectors in the province at 2.44 per 100 person-years worked. It was also the sector with the third lowest disabling injury rate, 3.14 per 100 person-years worked (see Chart 4.1). Based on person-years worked, Public Administration, Education and Health Services was the third largest sector in Alberta after the Wholesale and Retail and Business, Personal and Professional Services sectors.

¹⁸ In 2007, industry 82800 (Seniors' Supportive Living/Lodges) was reclassified from the Business, Personal and Professional Services sector to the Public Administration, Education and Health sector. The injury rates presented in Chart 5.6 have been revised accordingly.

¹⁹ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

In 2007, the lost-time claim rate for the Public Administration, Education and Health Services sector decreased by 9.2% to 2.44 per 100 person-years worked. The total number of lost-time claims decreased by 5.4% while person-years worked increased by 4.3%. Over the last five years this sector has seen a 14.2% fall in the lost-time claim rate compared to an average 23.7% fall for all sectors in the province. In 2007, the disabling injury rate decreased by 8.7% to 3.14 per 100 person-years worked, due to the rise in person-years worked and a decrease in disabling injury claims, 4.8% (see Table 5.6).

The Public Administration, Education and Health Services sector was one of two sectors where most of the claims involved women. The other sector was the Business, Personal and Professional Services sector. Women accounted for 65.1% and 64.2 % of lost-time and disabling injury claims in the Public Administration, Education and Health Services sector, although they accounted for 72.3% of those in employment²⁰.

Young workers aged 15 to 24 years accounted for 9.4% of the lost-time and 10.7% of the disabling injuries in this sector, while composing 8.3% of employment (see Table 6.2). By occupation, 16.2% of the disabling injury claims were from nurse aides, orderlies and patient service associates, and 8.3% from registered nurses. Visiting homemakers, housekeepers and related occupations accounted for 5.4% of the disabling injury claims.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 60.7% of disabling injury claims, followed by other traumatic injuries and diseases, 10.0%, and surface wounds and bruises, 9.7%. The main parts of body injured were the back (including the spine and spinal cord), 28.2%, and other trunk 14.6%.

The main sources of injury that resulted in disabling injury claims in this sector were person-other than injured or ill worker, 21.5%, and structures and surfaces, 16.7%. The main event type was overexertion 29.6%, followed by bodily reaction, 13.9%, and fall on the same level, 12.2%.

The median days-lost due to injuries and diseases for the Public Administration, Education and Health Services Sector remained at six days; the average days-lost was 18 days per claim, down from 19 in 2006. The average figures for all sectors of the province were seven and 23.

Sub-Sector Analysis:

- Aside from the Education, Museums and Libraries sub-sector and Municipal Services sub-sector which experienced increases in injury rates, most of the large sub-sectors saw decreases in lost-time and disabling injury claims and an increase in person-years worked.

²⁰ Statistics Canada's Labour Force Survey (2007 Historical Review) for the Public Administration, Health Care and Social Assistance and Educational Services industries. For more information, see Appendix A.

- The Health and Social Services and Municipal Services sub-sectors had lost-time claim rates and disabling injury rates that exceeded both the average for this sector and the average for all sectors in the province. The lost-time claim rate for Health Care Centres also exceeded the average for all sectors in the province.
- The duration rate of the Health Care Centres sub-sector, Health and Social Services sub-sector and Municipal Services sub-sector were all greater than the average duration rate for all sectors in the province, 48 (see Table 5.6).

Table 5.6
Public Administration, Education and Health Services Sector -
Alberta: 2006 and 2007

Industry Sector		2006	2007	% Change
Public Administration, Education and Health Services	Estimated person-years worked	264,380	275,665	4.3%
	Lost-time claims	7,109	6,728	-5.4%
	Lost-time claim rate	2.69	2.44	-9.2%
	Modified-work claims	4,549	4,527	-0.5%
	Disabling injury claims	9,090	8,656	-4.8%
	Disabling injury rate	3.44	3.14	-8.7%
	Duration rate	50	43	-12.8%
Sub-Sector		2006	2007	% Change
Alberta Government Public Services	Estimated person-years worked	27,814	30,594	10.0%
	Lost-time claims	462	443	-4.1%
	Lost-time claim rate	1.66	1.45	-12.8%
	Modified-work claims	202	257	27.2%
	Disabling injury claims	590	584	-1.0%
	Disabling injury rate	2.12	1.91	-10.0%
	Duration rate	37	34	-9.7%
Education, Museums and Libraries	Estimated person-years worked	74,261	75,076	1.1%
	Lost-time claims	807	833	3.2%
	Lost-time claim rate	1.09	1.11	2.1%
	Modified-work claims	444.0	476	7.2%
	Disabling injury claims	974	1,053	8.1%
	Disabling injury rate	1.31	1.40	6.9%
	Duration rate	23	20	-10.3%
Health Care Centres	Estimated person-years worked	64,176	66,445	3.5%
	Lost-time claims	2,118	1,898	-10.4%
	Lost-time claim rate	3.30	2.86	-13.4%
	Modified-work claims	1,491	1,222	-18.0%
	Disabling injury claims	2,751	2,302	-16.3%
	Disabling injury rate	4.29	3.47	-19.2%
	Duration rate	67	51	-22.8%
Health & Social Services	Estimated person-years worked	51,137	54,353	6.3%
	Lost-time claims	2,155	1,880	-12.8%
	Lost-time claim rate	4.21	3.46	-17.9%
	Modified-work claims	1,336	1,407	5.3%
	Disabling injury claims	2,691	2,474	-8.1%
	Disabling injury rate	5.26	4.55	-13.5%
	Duration rate	68	56	-17.5%

Table 5.6 (Continued)
Public Administration, Education and Health Services Sector -
Alberta: 2006 and 2007

Sub-Sector		2006	2007	% Change
Municipal Services	Estimated person-years worked	45,751	48,240	5.4%
	Lost-time claims	1,544	1,659	7.4%
	Lost-time claim rate	3.38	3.44	1.9%
	Modified-work claims	1,066	1,151	8.0%
	Disabling injury claims	2,056	2,220	8.0%
	Disabling injury rate	4.49	4.60	2.4%
	Duration rate	57	60	6.2%
Other Public Administration	Estimated person-years worked	1,240	957	-22.8%
	Lost-time claims	23	15	-34.8%
	Lost-time claim rate	1.86	1.57	-15.5%
	Modified-work claims	10	14	40.0%
	Disabling injury claims	28	23	-17.9%
	Disabling injury rate	2.26	2.40	6.5%
	Duration rate*	N/A	N/A	N/A

* Duration Rates are not calculated when there are fewer than 30 lost-time claims.

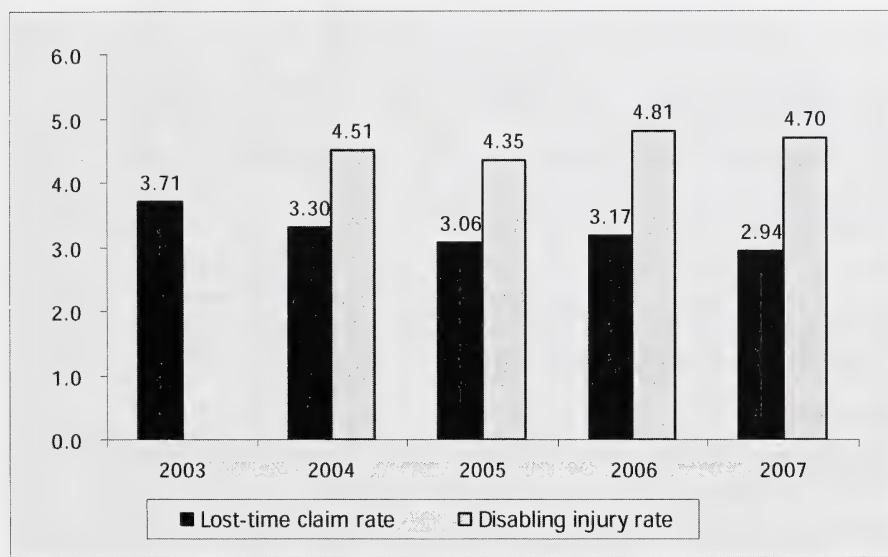
Data Source: WCB Data, Prepared by Data Development and Evaluation

Transportation, Communication and Utilities

The Transportation, Communication and Utilities sector consists of various modes of transportation (air, rail, truck, bus, taxi cab and limousine services), assorted methods of communication and entertainment (radio, television, movies, live theatre, telecommunications and cable vision) and utilities (electricity, natural gas, garbage collection, recycling and disposal).

Chart 5.7

Transportation, Communication and Utilities Sector - Injury Rates: 2003-2007²¹



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

The lost-time claim rate decreased by 7.3% in 2007, to 2.94 per 100 person-years worked. The number of lost-time claims decreased by 6.2% and the person-years worked increased by 1.2%, meaning proportionately, there were fewer injuries. Since 2003, the lost-time claim rate has fallen by 20.6%, lower than the average decrease for all sectors of the province, 23.7%. The disabling injury rate decreased in 2007 by 2.3%, due to a decrease in disabling injury claims of 1.2% and an increase in person-years worked (see Table 5.7).

²¹ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

In this sector, 12.9% and 18.0% of the lost-time claims and disabling injury claims were from young workers aged 15 to 24, who composed 9.3% of those in employment²² (see Table 6.2). Men accounted for 84.2% of lost-time claims and 82.2% of disabling injury claims and 72.0% of those in employment. Truck drivers led all occupations, accounting for 32.4% of the total disabling injury claims. This was followed by material handlers and shippers and receivers, with 9.3% and 6.4% of the disabling injury claims.

The leading nature of injury or disease in this sector was sprains, strains and tears, accounting for 52.8% of all disabling injury claims. This was followed by surface wounds and bruises and other traumatic injuries and diseases, both accounting for 12.3% of disabling injuries. The back (including spinal cord) was the body part most affected by disabling work incidents, accounting for 24.3% of injuries. Other trunk accounted for 14.9% of the disabling injury claims, followed by legs, 10.0%.

The leading source of injury was person – ill or injured worker (self-injured persons, bodily conditions, and self-induced bodily motion injuries), 17.9%, followed by containers, 16.2%, structures and surfaces, 16.1%, and vehicles, 15.8%. Overexertion was the leading type of event accounting for 22.9% of disabling injuries, then bodily reaction, 14.2%, and struck by object, 12.1%.

The median days-lost due to injuries and diseases for the Transportation, Communication and Utilities sector decreased to nine, from 10 in 2006. The average days-lost remained unchanged at 28 days per claim. The average figure for all sectors of the province was seven and 23 respectively.

Sub-Sector Analysis:

- In 2007, Trucking Services, the largest sub-sector accounting for 44% of the person-years worked, saw a decrease in the lost-time claim rate of 16.2%. This was a result of a decrease in lost-time claims of 13.0% and an increase in person-years worked of 3.9%. The duration rate for this sub-sector was over twice the provincial average, at 129 days-lost per 100 person-years worked, compared to 48.
- Six industry sub-sectors experienced the increase in both their lost-time claim and disabling injury rates. These were the Bus, Taxi and Limousine Services sub-sector, Garbage Collection, Recycle, Disposal and Towing Services sub-sector, Radio, TV, Movies, Live Theatre and Ballet sub-sector, Rail Services sub-sector, Utilities sub-sector, and the Other Transportation, Communication and Utilities sub-sector.
- The Utilities sub-sector had the lowest lost-time claim rate of 0.61 per 100 person-years worked. The Telecommunications, Closed Circuit TV and

²² Statistics Canada's Labour Force Survey (2007 Historical Review) for the Transportation and Warehousing industry. For more information, see Appendix A.

Cablevision sub-sector had the lowest disabling injury rate at 1.54 per 100 person-years worked.

- Garbage Collection, Recycle, Disposal and Towing Services sub-sector had the highest lost-time claim rate at 4.72 per 100 person-years worked. Other Transportation, Communication and Utilities sub-sector had the highest disabling injury rate at 13.45 per 100 person-years worked.
- Within this sector, six sub-sectors had duration rates higher than the average for all sectors in the province, 48 per 100 person-years worked (see Table 5.7).

Table 5.7
Transportation, Communication and Utilities Sector - Alberta:
2006 and 2007

Industry Sector		2006	2007	% Change
Transportation, Communication, and Utilities	Estimated person-years worked	121,972	123,406	1.2%
	Lost-time claims	3,871	3,630	-6.2%
	Lost-time claim rate	3.17	2.94	-7.3%
	Modified-work claims	3,373	3,702	9.8%
	Disabling injury claims	5,869	5,801	-1.2%
	Disabling injury rate	4.81	4.70	-2.3%
	Duration rate	97	82	-15.7%
Sub-Sector		2006	2007	% Change
Air Services	Estimated person-years worked	12,364	12,419	0.4%
	Lost-time claims	485	482	-0.6%
	Lost-time claim rate	3.92	3.88	-1.1%
	Modified-work claims	223	261	17.0%
	Disabling injury claims	592	586	-1.0%
	Disabling injury rate	4.79	4.72	-1.5%
	Duration rate	87	65	-24.9%
Bus, Taxi and Limousine Services	Estimated person-years worked	5,719	5,727	0.1%
	Lost-time claims	186	200	7.5%
	Lost-time claim rate	3.25	3.49	7.4%
	Modified-work claims	182	222	22.0%
	Disabling injury claims	285	316	10.9%
	Disabling injury rate	4.98	5.52	10.7%
	Duration rate	74	81	9.5%
Garbage Collection, Recycle, Disposal and Towing Services	Estimated person-years worked	4,273	4,783	11.9%
	Lost-time claims	185	233	25.9%
	Lost-time claim rate	4.33	4.87	12.5%
	Modified-work claims	215	240	11.6%
	Disabling injury claims	322	370	14.9%
	Disabling injury rate	7.54	7.74	2.6%
	Duration rate	97	107	9.8%
Radio, TV, Movies, Live Theatre and Ballet	Estimated person-years worked	6,223	4,906	-21.2%
	Lost-time claims	53	52	-1.9%
	Lost-time claim rate	0.85	1.06	24.4%
	Modified-work claims	31	48	54.8%
	Disabling injury claims	70	84	20.0%
	Disabling injury rate	1.13	1.71	52.2%
	Duration rate	26	23	-8.0%

Table 5.7 (continued)
Transportation, Communication and Utilities Sector - Alberta:
2006 and 2007

Sub-Sector		2006	2007	% Change
Rail Services	Estimated person-years worked	7,874	7,217	-8.3%
	Lost-time claims	153	153	0.0%
	Lost-time claim rate	1.94	2.12	9.1%
	Modified-work claims	98	91	-7.1%
	Disabling injury claims	202	199	-1.5%
	Disabling injury rate	2.57	2.76	7.5%
	Duration rate	63	81	29.7%
Telecommunications, Closed Circuit TV and Cablevision	Estimated person-years worked	13,778	13,287	-3.6%
	Lost-time claims	157	113	-28.0%
	Lost-time claim rate	1.14	0.85	-25.4%
	Modified-work claims	140	175	25.0%
	Disabling injury claims	206	205	-0.5%
	Disabling injury rate	1.50	1.54	3.2%
	Duration rate	13	9	-31.2%
Trucking Services	Estimated person-years worked	52,498	54,529	3.9%
	Lost-time claims	2,383	2,074	-13.0%
	Lost-time claim rate	4.54	3.80	-16.2%
	Modified-work claims	1,774	1,800	1.5%
	Disabling injury claims	3,375	3,041	-9.9%
	Disabling injury rate	6.43	5.58	-13.3%
	Duration rate	165	129	-21.6%
Utilities	Estimated person-years worked	14,357	15,146	5.5%
	Lost-time claims	85	92	8.2%
	Lost-time claim rate	0.59	0.61	2.5%
	Modified-work claims	201	228	13.4%
	Disabling injury claims	238	275	15.5%
	Disabling injury rate	1.66	1.82	9.5%
	Duration rate	9	11	12.2%
Other	Estimated person-years worked	4,885	5,392	10.4%
	Lost-time claims	184	231	25.5%
	Lost-time claim rate	3.77	4.28	13.8%
	Modified-work claims	509	637	25.1%
	Disabling injury claims	579	725	25.2%
	Disabling injury rate	11.85	13.45	13.4%
	Duration rate	59	50	-15.8%

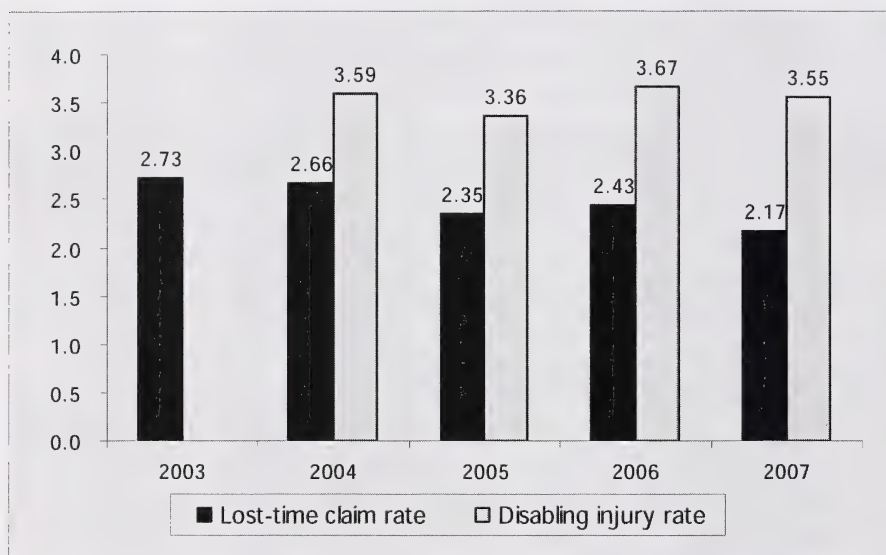
Data Source: WCB Data, Prepared by Data Development and Evaluation

Wholesale and Retail

The Wholesale and Retail sector includes wholesale operations, food and beverage stores, department stores, furniture and appliance stores, home improvement centres, the sale and service of automobiles, trailers, industrial and farm equipment, and office and medical equipment.

Chart 5.8

Wholesale and Retail Sector – Injury Rates: 2003-2007²³



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

Wholesale and Retail was the largest sector in Alberta accounting for 19% of the total provincial person-years worked in 2007 (see Chart 4.2). The 2007 lost-time claim rate of 2.17 per 100 person-years worked was a decrease of 10.7% from 2006. This was a result of the number of lost-time claims decreasing by 9.1% and person-years worked increasing by 1.7%. Since 2003, the lost-time claim rate has decreased by 20.3% compared to the average decrease for all sectors of the province, 23.7%. The disabling injury rate decreased by 3.2% in 2007 to 3.55 per 100 person-years worked. This was a result of increasing person-years worked and a decrease in disabling injury claims of 1.5% (see Table 5.8).

²³ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005 a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

In this sector, men accounted for 62.8% of the lost-time claims in 2007 and 65.1% of disabling injury claims. Men accounted for 51.7% of those in employment²⁴. Young workers accounted for 25.1% of the lost-time claims 28.8% of the disabling injury claims and 28.4% of those in employment (see Table 6.2). Retail Salespersons and sales clerks and grocery clerks and store shelf stockers were the occupation groups with the highest number of disabling injury claims, at 13.8% and 13.0% respectively.

The leading nature of injury or disease in this sector was sprains, strains and tears, accounting for 49.9% of all disabling injury claims. This was followed by surface wounds and bruises, 13.2%, and open wounds, 10.8%. The back (including spinal cord) was the body part most affected by disabling work incidents in this sector, accounting for 26.2% of injuries. Other trunk accounted for 12.9% of the disabling injury claims, followed by and wrists and hands, 10.8%, and fingers and fingernails, 10.4%.

The leading source of injury was containers, 18.6%, followed by person – ill or injured worker, 16.8%, structures and surfaces, 12.4% and parts and materials, 10.8%. Overexertion was the leading type of event accounting for 26.0% of disabling injuries, followed by struck by object 17.4%.

In this sector the median days-lost decreased to five in 2007, from six. The average days-lost was 16 per claim down from 18 in 2006. Both of these figures are among the lowest when compared to other sectors in the province.

Sub-Sector Analysis:

- Four sub-sectors reported a fall in the lost-time claim rate as a result of growth in person-years worked and decreases in the number of lost-time claims and disabling injury claims. These were the Automobiles, Sport Vehicles, Small Engines and Trailers sub-sector, Food and Beverage Stores sub-sector, Industrial, Farm Equipment and Products sub-sector and the Yard and Home Improvement Centres sub-sector (see Table 5.8).
- The Food and Beverage Stores sub-sector had the highest lost-time claim and disabling injury rates at 3.84 and 5.84 per 100 person-years worked respectively. This was followed by the Yard and Home Improvement Centres sub-sector at 3.28 and 5.56 per 100 person-years worked.
- The Office, Medical and Entertainment Equipment sub-sector displayed the lowest lost-time and disabling injury rates at 0.33 and 0.48 per 100 person-years worked respectively.
- Duration rates were lower than the average rate for all sectors in the province in five of the seven sub-sectors.

²⁴ Statistics Canada's Labour Force Survey (2007 Historical Review) for the Wholesale and Retail Trade industry. For more information, see Appendix A.

Table 5.8
Wholesale and Retail Sector - Alberta: 2006 and 2007

Industry Sector		2006	2007	% Change
Wholesale and Retail	Estimated person-years worked	308,356	313,647	1.7%
	Lost-time claims	7,501	6,816	-9.1%
	Lost-time claim rate	2.43	2.17	-10.7%
	Modified-work claims	6,778	7,288	7.5%
	Disabling injury claims	11,314	11,149	-1.5%
	Disabling injury rate	3.67	3.55	-3.2%
	Duration rate	44	35	-19.0%
Sub-Sector		2006	2007	% Change
Automobiles, Sport Vehicles, Small Engines and Trailers	Estimated person-years worked	48,022	48,441	0.9%
	Lost-time claims	1238	1162	-6.1%
	Lost-time claim rate	2.58	2.40	-6.9%
	Modified-work claims	768	836	8.9%
	Disabling injury claims	1690	1640	-3.0%
	Disabling injury rate	3.52	3.39	-3.8%
	Duration rate	57	41	-28.0%
Food and Beverage Stores	Estimated person-years worked	52,923	54,948	3.8%
	Lost-time claims	2,502	2,108	-15.7%
	Lost-time claim rate	4.73	3.84	-18.9%
	Modified-work claims	2,172	2,186	0.6%
	Disabling injury claims	3,462	3,211	-7.3%
	Disabling injury rate	6.54	5.84	-10.7%
	Duration rate	75	56	-25.1%
Industrial, Farm Equipment and Products	Estimated person-years worked	49,608	51,745	4.3%
	Lost-time claims	905	778	-14.0%
	Lost-time claim rate	1.82	1.50	-17.5%
	Modified-work claims	1,049	1,080	3.0%
	Disabling injury claims	1,685	1,578	-6.4%
	Disabling injury rate	3.40	3.05	-10.2%
	Duration rate	38	34	-12.0%
Office, Medical and Entertainment Equipment	Estimated person-years worked	26,032	25,324	-2.7%
	Lost-time claims	102	84	-17.6%
	Lost-time claim rate	0.39	0.33	-15.3%
	Modified-work claims	53	64	20.8%
	Disabling injury claims	131	121	-7.6%
	Disabling injury rate	0.50	0.48	-5.0%
	Duration rate	7	5	-16.6%

Table 5.8 (continued)

Wholesale and Retail Sector - Alberta: 2006 and 2007

Sub-Sector		2006	2007	% Change
Yard and Home Improvement Centres	Estimated person-years worked	12,467	13,915	11.6%
	Lost-time claims	489	457	-6.5%
	Lost-time claim rate	3.92	3.28	-16.3%
	Modified-work claims	483	531	9.9%
	Disabling injury claims	755	773	2.4%
	Disabling injury rate	6.06	5.56	-8.3%
	Duration rate	60	57	-5.5%
Wholesale Operations	Estimated person-years worked	29,010	29,402	1.4%
	Lost-time claims	675	596	-11.7%
	Lost-time claim rate	2.33	2.03	-12.9%
	Modified-work claims	737	835	13.3%
	Disabling injury claims	1,106	1,125	1.7%
	Disabling injury rate	3.81	3.83	0.3%
	Duration rate	41	35	-15.3%
Other	Estimated person-years worked	90,293	89,873	-0.5%
	Lost-time claims	1,590	1,631	2.6%
	Lost-time claim rate	1.76	1.82	3.1%
	Modified-work claims	1,516	1,756	15.8%
	Disabling injury claims	2,485	2,701	8.7%
	Disabling injury rate	2.75	3.01	9.2%
	Duration rate	31	26	-15.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

DEMOGRAPHICS OF INJURED WORKERS

In this section, we examine the demographics of the injured worker. While the focus is at the provincial level, sector information of interest is highlighted.

Injured Worker Characteristics

The age, job tenure, wage, gender, and occupation of injured workers are analysed to help government and industries determine workplace health and safety programs for specific groups.

Age

Injuries in most age groups were generally proportionate to their representation among workers in Alberta, although workers aged 15 to 24 accounted for a higher proportion of injury claims than the proportion they represent in employment (see Table 6.1 and Chart 6.1). In 2007, young workers accounted for 19.5% of lost-time claims and 22.7% of disabling injury claims while accounting for 18.0% of those in employment. Young workers also accounted for 14.7% of the total actual hours worked in the province. Looking at actual hours worked can be a better indicator of the exposure to workplace hazards for more marginal groups in employment, due to differing levels of part-time employment in various industries. It indicates a higher frequency of injury for young workers compared to other age groups than employment counts would suggest (see also Note 6.1).

Older workers are injured less frequently, partially due to their greater levels of experience and the type of work they perform. Workers aged 45 to 54 years accounted for 22.5% of lost-time claims and 20.0% of disabling injury claims and 23.9% of those in employment. Workers aged 55 years and older accounted for 12.3% of all claims and 9.8% of disabling injury claims and 14.9% of those in employment. Workers aged 55 years and older also accounted for 13.1% of the total actual hours worked in the province.

Workers aged 45 and older were less likely than young workers to be injured seriously enough to warrant time off from work, although they required more time to recover from an injury. The duration of absence from work due to workplace injury or disease for 15 to 24 year olds displayed a median days-lost of five and an average days-lost of 16. Workers 55 years and older displayed a median of 10 and an average of 30 days-lost.

Note 6.1

In a national study completed by the Institute for Work and Health (IWH), young workers were often found to accept workplace injuries as “part of the job” because they were frequent and minor. They determined that this perspective is, for the most part, the result of young workers’ perceived inability to improve or alter their working conditions (Breslin et al., 2006).

Each age group had different patterns of injury across industry sectors, although most displayed a higher proportion of injuries to young workers than the proportion they represent in employment (see Table 6.2). In the Mining and Petroleum Development sector, young workers (those aged 15 to 24) accounted for 20.9% and 26.9% of lost-time claims and disabling injury claims, while accounting for 14.2% of those in employment. In the Transportation, Communications and Utilities sector, young workers accounted for 9.3% of those in employment, while accounting for 12.9% and 18.0% of the lost-time claims and disabling injury claims. In contrast, young workers accounted for 25.1% of lost-time claims, 28.8% of disabling injury claims, and 28.4% of those in employment in the Wholesale and Retail sector.

Table 6.1

**Lost-Time Claims and Disabling injury claims by Age - Alberta:
2006 and 2007**

Age	2006				2007			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Under 15 Years	27	0.1%	40	0.1%	36	0.1%	48	0.1%
15 - 19 Years	2,256	6.1%	4,419	6.8%	2,044	6.0%	4,122	6.6%
20 - 24 Years	5,031	13.7%	10,669	16.5%	4,602	13.4%	10,040	16.1%
25 - 34 Years	8,520	23.2%	16,463	25.5%	7,731	22.6%	15,760	25.2%
35 - 44 Years	8,726	23.8%	14,702	22.8%	7,916	23.1%	13,917	22.3%
45 - 54 Years	7,998	21.8%	12,501	19.4%	7,686	22.5%	12,483	20.0%
55+ Years	4,143	11.3%	5,731	8.9%	4,212	12.3%	6,103	9.8%
Unspecified	0	N/A	0	N/A	0	N/A	0	N/A
Total	36,701	100.0%	64,525	100.0%	34,227	100.0%	62,473	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 6.2

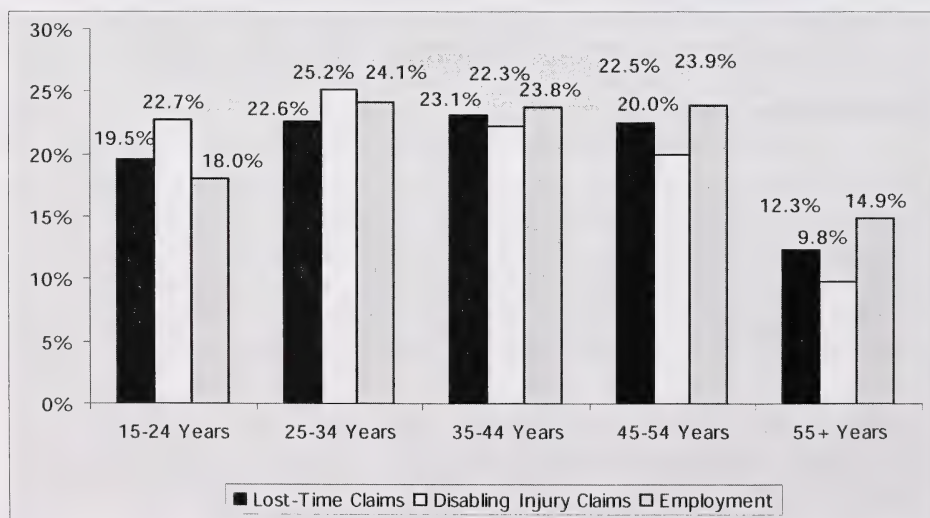
Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Major Industry Sector - Young Workers (15-24 years), Alberta: 2006 and 2007

Major Industry Sector	Lost-Time Claims	Disabling Injury Claims	Employment
Agriculture and Forestry	15.1%	17.6%	11.9%
Business, Personal and Professional Services	26.5%	28.1%	21.4%
Construction and Construction Trade Services	24.4%	25.4%	18.4%
Manufacturing, Processing and Packaging	18.1%	21.1%	13.6%
Mining and Petroleum Development	20.9%	26.9%	14.2%
Public Administration, Education and Health Services	9.4%	10.7%	8.3%
Transportation, Communication and Utilities	12.9%	18.0%	9.3%
Wholesale and Retail	25.1%	28.8%	28.4%
All Industries	19.5%	22.7%	18.0%

Data Source: WCB Data, Statistics Canada's Labour Force Survey (2007 Historical Review), Prepared by Data Development and Evaluation

Chart 6.1

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Selected Age Groups - Alberta: 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2007 Historical Review)

Job Tenure

Job tenure is the length of time a worker has had consistent work with the same employer. Workers employed for less than six months account for 36.2% of lost-time claims and 37.0% disabling injury claims while accounting for 16.0% of those in employment. Conversely, workers employed for more than a year, accounted for 50.0% of lost-time claims and 48.7% of disabling injury claims while accounting for the majority of those employed, 73.2% (see Chart 6.2). New workers therefore, are more likely to be involved in a workplace incident.

Table 6.3

Proportion^{*} of Lost-Time Claims, Disabling Injury Claims and Employment by Tenure - Alberta: 2007

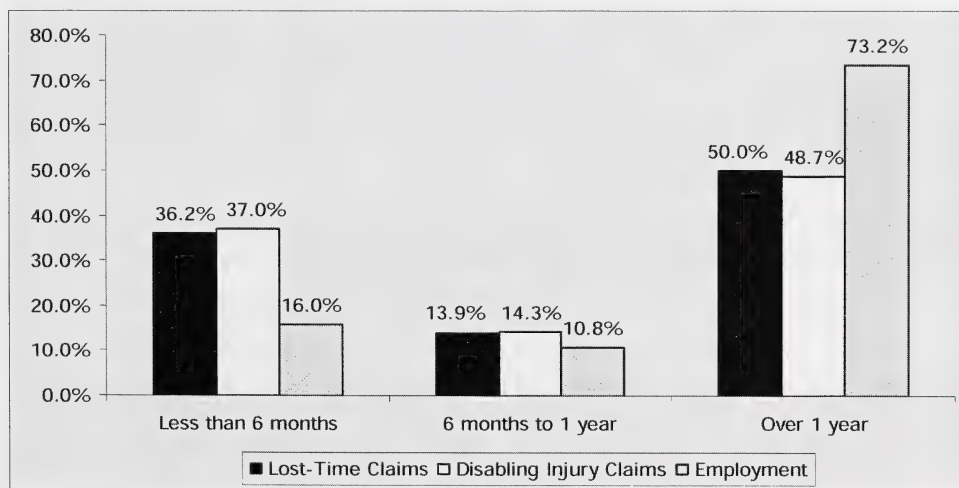
Tenure	Lost-Time Claims	%	Disabling Injury Claims	%	Employment
Less than 6 months	9,135	36.2%	13,316	37.0%	16.0%
6 months to 1 year	3,502	13.9%	5,153	14.3%	10.8%
Over 1 year	12,626	50.0%	17,547	48.7%	73.2%
Unspecified	8,964	N/A	26,457	N/A	0.0%
Total	34,227	100.0%	62,473	100.0%	100.0%

* Claims with unspecified tenure data have been removed from proportions.

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2007 Historical Review)

Chart 6.2

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Tenure - Alberta: 2007



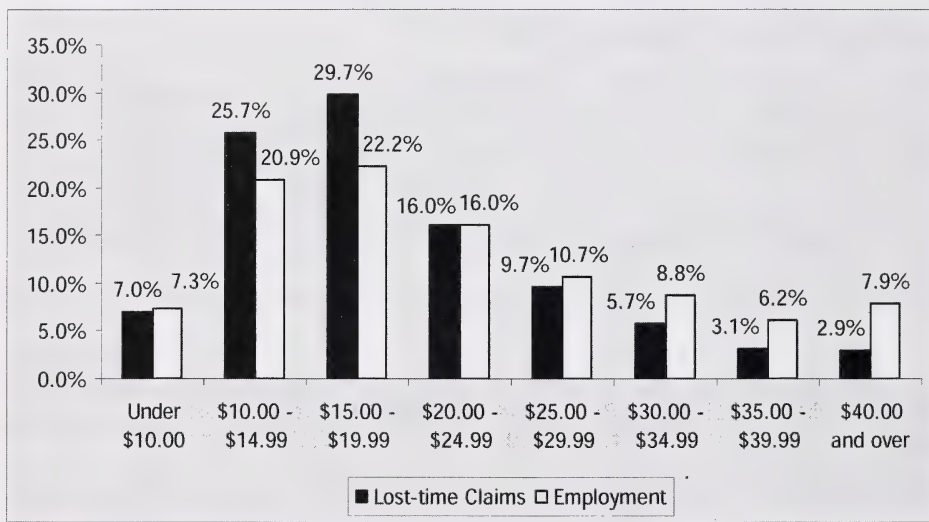
Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2007 Historical Review)

Hourly Wage

Injuries were more prevalent in lower income groups. Workers making less than \$23.90 an hour, the provincial average wage²⁵, accounted for 75.7% of lost-time claims and 63.5% of those in employment. In contrast, workers making the average wage or higher, accounted for 24.3% of lost-time claims and 36.5% of those in employment.²⁶

Chart 6.3

Proportion of Lost-Time Claims* and Employment by Hourly Wage – Alberta: 2007



* Claims with unspecified wage data have been removed from proportions.

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

Gender

In 2007, men accounted for 67.4% of lost-time claims and 73.0% of disabling injury claims while representing 54.9% of those employed in Alberta (see Table 6.4 and Chart 6.4). Women accounted for 45.1% of those employed in 2007, yet accounted for 32.6% of the lost-time claims and 27.0% of the disabling injury claims. These differences are likely the result of the different types of work women and men perform and the gender delineated attitudes and roles they bring to the workplace (see Note 6.2). The trend however, is reduced when we compare the proportions of lost-time claims and disabling injury claims to the total actual hours worked by each

²⁵ The average provincial wage in 2007 was \$23.90 according to the results of the 2007 Wage and Salary Survey. For more information, see <http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/2653.html>

²⁶ Statistics Canada, Labour Force Survey (monthly micro-data files). See Appendix A for more information.

gender, as it allows for a better comparison of labour market exposure than employment counts for those in part-time employment (see Chart 6.4).

Men represented the majority of workers in higher risk industry sectors: Construction and Construction Trade Services, Agriculture and Forestry, Transportation, Communication and Utilities, and Manufacturing, Processing and Packaging, and submitted more claims. More women than men had lost-time claims in sectors where women made up a larger proportion of the labour force. In the Public Administration, Education and Health Services sector, women accounted for 65.1% of lost-time claims, 64.2% of disabling injury claims and 72.3% of those in employment. In the Business, Personal and Professional Services sector, women accounted for 56.6% of lost-time claims, 54.3% of disabling injury claims and 50.7% of those in employment²⁷.

Note 6.2

Focus group research completed by the IWH found that employers and workers responded differently to injuries and conditions on the workplace relative to their gender.

Researchers found women in their study often found their complaints “delegitimized”, or dismissed, by their employers. In contrast, they found men “stifled”, or muted, their injuries in order to advance their positions at work (*Breslin et al., 2006*).

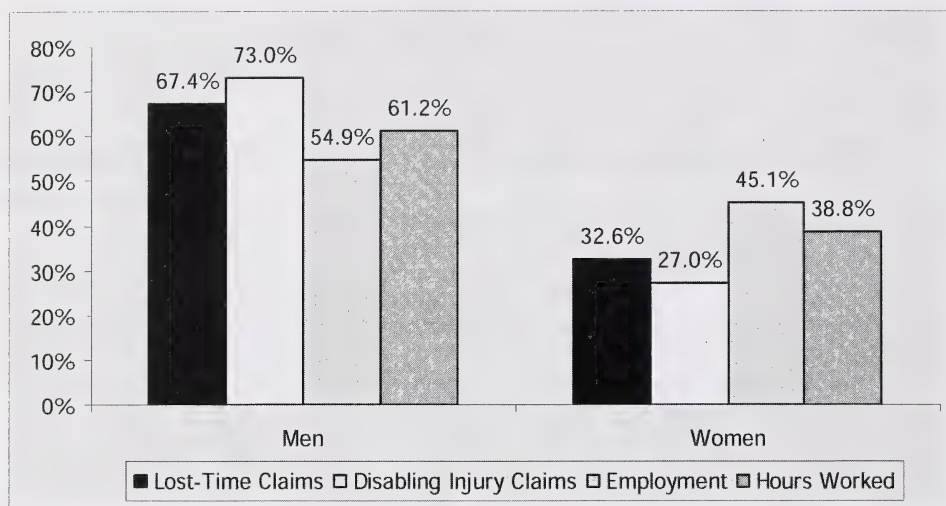
Table 6.4
Lost-Time Claims and Disabling Injury Claims by Gender -
Alberta: 2006 and 2007

Gender	2006				2007			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Men	24,180	66.9%	45,965	72.3%	22,730	67.4%	44,917	73.0%
Women	11,946	33.1%	17,638	27.7%	10,974	32.6%	16,624	27.0%
Unspecified	575	N/A	922	N/A	523	N/A	932	N/A
Total	36,701	100.0%	64,525	100.0%	34,227	100.0%	62,473	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

²⁷ Statistics Canada's Labour Force Survey (2007 Historical Review). For further information see Appendix A.

Chart 6.4

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Gender - Alberta: 2007

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2007 Historical Review)

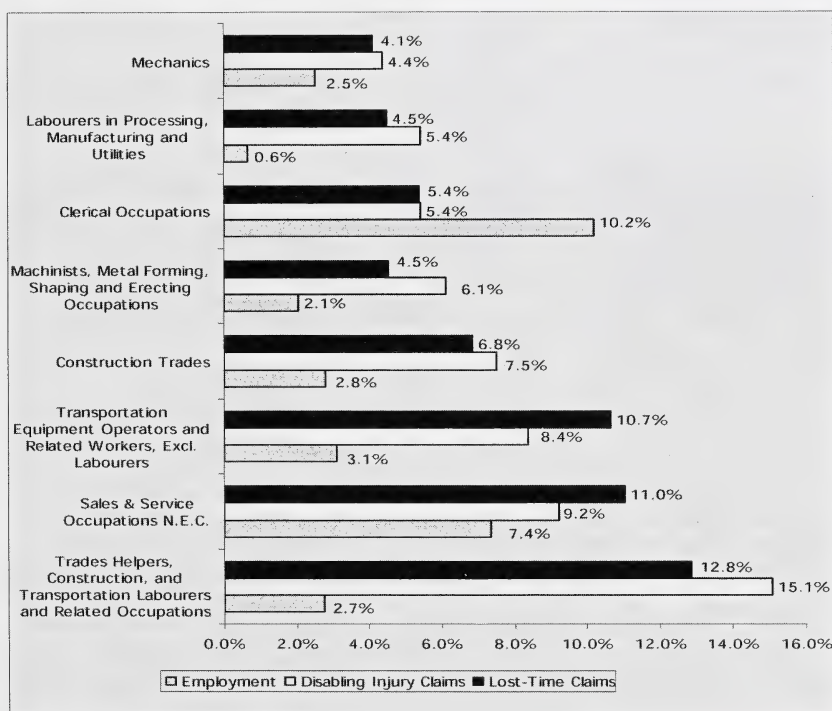
Occupation group

Occupation group is used to describe the kind of work performed by the injured worker regardless of the industry in which their employer is classified.

In 2007, the trades helpers, construction, and transportation labourers and related occupations had the largest number of injuries and diseases with time away from work or requiring modified work, accounting for 12.8% of total lost-time claims and 15.1% of disabling injury claims. This occupation group accounted for only 2.7% of those in employment in Alberta.²⁸ In contrast, the clerical occupations accounted for 5.4% of the total lost-time claims and total disabling injury claims, yet they accounted for 10.2% percent of those in employment in 2007 (see Table 6.5 and Chart 6.5).

Chart 6.5

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Selected Occupation Group²⁹ - Alberta: 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (Microdata files)

²⁸ Statistics Canada's Labour Force Survey (Microdata files). For further information see Appendix A.

²⁹ Occupation groups were selected by highest proportion of disabling injury. A full comparison by occupation group is available on request.

Table 6.5
Proportion of Lost-Time Claims, Disabling Injury Claims and
Employment by Selected Occupation³⁰ - Alberta: 2007

Occupation	Lost-Time Claims	Disabling Injury Claims	Employment
Trades Helpers, Construction, and Transportation Labourers and Related Occupations	12.8%	15.1%	2.7%
Sales & Service Occupations N.E.C.	11.0%	9.2%	7.4%
Transportation Equipment Operators and Related Workers, Excl. Labourers	10.7%	8.4%	3.1%
Construction Trades	6.8%	7.5%	2.8%
Machinists, Metal Forming, Shaping and Erecting Occupations	4.5%	6.1%	2.1%
Clerical Occupations	5.4%	5.4%	10.2%
Labourers in Processing, Manufacturing and Utilities	4.5%	5.4%	0.6%
Mechanics	4.1%	4.4%	2.5%
Machine Operators in Manufacturing	2.5%	3.7%	2.1%
Retail Salespersons and Sales Clerks	3.4%	2.9%	3.9%
Assisting Occupations in Support of Health Services	3.8%	2.6%	1.7%
Primary Production Labourers	1.6%	2.6%	0.9%
Stationary Engineers, Power Station Operators and Electrical Trades and Telecommunications Occupations	1.7%	2.4%	1.6%
Heavy Equipment and Crane Operators Including Drillers	1.8%	2.3%	0.9%
Other Trades N.E.C.	1.7%	1.6%	0.8%
Occupations in Protective Services	2.1%	1.6%	1.3%
Chefs and Cooks	2.1%	1.6%	1.7%
Occupations Unique to Forestry Operations, Mining, Oil and Gas Extraction, and Fishing, excluding labourers	0.9%	1.5%	2.1%
Childcare and Home Support Workers	2.0%	1.4%	1.3%
Technical Occupations Related to Natural and Applied Sciences	1.3%	1.4%	4.3%
Nurse Supervisors and Registered Nurses	1.8%	1.3%	1.9%
Technical and Related Occupations in Health	1.7%	1.2%	1.7%
Assemblers in Manufacturing	0.9%	1.1%	0.7%
Cashiers	1.2%	1.0%	1.8%

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

³⁰ Occupation groups were selected by highest proportion of disabling injury. A full comparison by occupation group is available on request.

INJURY AND DISEASE ANALYSIS

Overexertion was the most common cause for lost-time claims in all industries. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

The following section presents more in-depth breakdown of workplace injuries or diseases.³¹

Nature of Injury or Disease

In 2007, 91.4% of lost-time claims and 92.6% of disabling injury claims were traumatic injuries and disorders. The four most common specific traumatic injuries and disorders were sprains, strains and tears, surface wounds and bruises, fractures and dislocations, and open wounds (see Table 7.1).

Men filed 69.9% of all sprains, strains and tears disabling injury claims compared to only 30.1% from women. The proportions are greater for fractures and dislocations with 81.3% of disabling injury claims submitted by men, 18.7% by women. Only in the infectious and parasitic disorders category, where women filed 90.2% of claims compared to 9.8% by men, did women file more disabling injury claims.

A large number of sprains, strains and tears disabling injury claims resulted in injuries to the back (including spine and spinal cord), 39.2%, and other trunk (for example, shoulder or chest), 16.0%. This nature of injury also resulted in a high proportion of injuries to the ankles and feet, 11.6%, and legs, 10.1%.

Person – ill or injured, containers and structures and surfaces were the highest sources of injury connected with sprains, strains and tears disabling injury claims, accounting for 29.5%, 12.7% and 13.5% respectively. Overexertion and bodily reaction were the leading types of event connected with the sprains, strains and tears disabling injury claims, accounting for 37.6% and 23.1% of the total claims respectively.

The next leading nature of injury, after sprains, strains and tears, was surface wounds and bruises, accounting for 11.6% of the lost-time claims and 11.9% of the disabling

Note 7.1

Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.

Note 7.2

The CSA standard is designed so that Nature of Injury and Part of Body categories are directly linked when classifying injuries. This is also true for the relationship between the Source of Injury and Type of Event categories.

³¹ Detailed analysis of the pattern among these characteristics is available upon request.

injury claims. The largest part of body categories associated with surface wound claims were the legs, 14.6%, eyes, 13.9%, other trunk, 11.9%, wrists, 10.0% and ankles, 9.9%.

Structures and surfaces were the highest sources of injury connected with surface wounds, accounting for 26.2% of the claims. Other sources, 13.8%, parts and materials, 12.6%, and vehicles, 11.3%, followed this. Struck by object, 33.3%, and fall on same level, 18.9%, were the leading types of event associated with surface wound claims.

Table 7.1
Nature of Injury or Disease - Alberta: 2007

Nature of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Traumatic Injuries and Disorders	31,290	91.4%	57,876	92.6%
Sprains, Strains and Tears	15,927	46.5%	29,351	47.0%
Surface Wounds and Bruises	3,978	11.6%	7,412	11.9%
Fractures and Dislocations	3,177	9.3%	6,879	11.0%
Open Wounds	3,045	8.9%	4,692	7.5%
Burns	882	2.6%	1,393	2.4%
Other Traumatic Injuries and Disorders	4,281	12.5%	8,149	13.0%
Systemic Diseases and Disorders	1,618	4.7%	2,531	4.1%
Infectious and Parasitic Disorders	141	0.4%	157	0.3%
Neoplasms, Tumors and Cancer	16	<0.1%	17	<0.1%
Symptoms, Signs and Ill-Defined Conditions	100	0.3%	143	0.2%
Multiple Diseases, Conditions and Disorders	6	<0.1%	6	<0.1%
Other Diseases, Conditions and Disorders	120	0.4%	145	0.2%
Nature of Injury - Unknown	936	2.7%	1,598	2.6%
Total	34,227	100.0%	62,473	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Part of Body Injured

The trunk was the main injured body part, accounting for over 35.6% of disabling injury claims and 37.9% of lost-time claims in 2007 (see Table 7.2). This was followed by injuries to the upper extremities, 24.4% of the disabling injury claims, and lower extremities, 23.2%.

Of the injuries to the trunk, 72.8% were sprains, strains and tears. Person – ill or injured, containers and structures and surfaces, were the main connected sources of injury. These categories accounted for 21.3%, 15.3% and 13.4% of the total disabling injury claims respectively. The majority of all back injuries resulted from overexertion, 44.9%, or bodily reaction, 15.6%.

The upper extremities accounted for 24.4% of disabling injury claims in 2007. The two largest proportions of claims were for open wounds and sprains, strains and tears, 30.8% and 22.3%. Being struck by an object, 26.0%, and caught in objects, 16.8%, were the two leading causes of disabling injury claims to the upper extremities.

Over half of the injuries and diseases to the lower extremities included sprains, strains and tears, 51.6%. For source of injury, the leading causes were person – ill or injured, 32.5%, followed by structures and surfaces, 22.3%. Over thirty percent of injuries to the lower extremities resulted from bodily reaction, 31.1%, and 18.8% resulted from being struck by objects.

In all sectors, the trunk was the primary part of body injured. For the Manufacturing, Processing and Packaging sector and the Business, Personal and Professional Services sector the upper extremities were almost equal in proportions of injury when compared to trunk injuries.

Table 7.2
Part of Body Injured - Alberta: 2007

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	12,981	37.9%	22,230	35.6%
Back, Including Spine, Spinal Cord	8,481	24.8%	14,058	22.5%
Other Trunk	4,500	13.1%	8,172	13.1%
Upper Extremities	7,693	22.5%	18,272	29.2%
Finger(s), Fingernail(s)	2,724	8.0%	7,155	9.3%
Wrist(s) and Hand(s) Except Finger(s)	2,857	8.3%	6,647	9.5%
Other Upper Extremities	2,112	6.2%	4,470	7.2%
Lower Extremities	7,123	20.8%	12,401	19.9%
Leg(s)	3,338	9.8%	5,811	10.6%
Ankle(s) and Foot (Feet) Except Toes	3,361	9.8%	5,915	11.5%
Other Lower Extremities	424	1.2%	675	1.1%
Head	2,770	8.1%	4,165	6.7%
Other Head Parts	1,774	5.2%	2,474	4.0%
Eye(s)	996	2.9%	1,691	2.7%
Multiple Body Parts	2,443	7.1%	3,538	5.7%
Neck, Including Throat	781	2.3%	1,302	2.1%
Body Systems	352	1.0%	437	0.7%
Part of Body - Unknown	64	0.2%	97	0.2%
Other Body Parts	20	0.1%	31	0.0%
Total	34,227	100.0%	62,473	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Source of Injury or Disease

The two primary sources of lost-time claims were persons, plants, animals and minerals, 24.5%,³² and structures and surfaces,³³ 17.4% (see Table 7.3). They also accounted for 23.6% and 15.1% of disabling injury claims respectively.

Persons, plants, animals and minerals was the leading source of injury in all sectors, with 54.3% of the disabling injury claims the result of bodily reaction. Repetitive motion also accounted for 18.4% of these claims. The leading nature connected with the persons, plants, animals and minerals claims was strains and tears, 71.3%, with the back (including spine and spinal cord) the leading part of body injured, 29.0%.

Almost all of the source of injury categories caused more injuries or diseases to men than women. The exceptions being persons - other than injured or ill worker³⁴ where women compose 77.8% of disabling injury claims. The next highest source category was other persons, plants, animals, and minerals where women compose 45.9% of total claims.

³² Persons, plants, animals and minerals include living organisms and their products as well as raw, metallic and non-metallic minerals (examples: animals and animal products, asbestos, etc).

³³ Structures and surfaces include the floor or the ground resulting in sprains, strains and tears, fractures and dislocations and surface wounds and bruises. This contact is usually the result of a fall, either from a height or on the same level.

³⁴ Person-other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.

Table 7.3
Source of Injury or Disease - Alberta: 2007

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	8,369	24.5%	14,773	23.6%
Person-Injured or Ill Worker*	5,887	17.2%	11,367	18.2%
Person-Other Than Injured or Ill Worker**	1,630	4.8%	2,097	3.4%
Minerals - Metallic or Nonmetallic (except fuel)	150	0.4%	279	0.4%
Other Persons, Plants, Animals & Minerals	702	2.1%	1,030	1.6%
Structures and Surfaces	5,946	17.4%	9,407	15.1%
Parts and Materials	3,652	10.7%	8,475	13.6%
Containers***	3,345	9.8%	5,949	9.5%
Vehicles	2,810	8.2%	4,332	6.9%
Tools, Instruments and Equipment	2,319	6.8%	5,278	8.4%
Hand Tools - Nonpowered	1,089	3.2%	2,818	4.5%
Hand Tools - Powered	322	0.9%	756	1.2%
Other Tools and Equipments	908	2.7%	1,704	2.7%
Machinery	1,843	5.4%	3,392	5.4%
Furniture and Fixtures	1,045	3.1%	1,680	2.7%
Chemicals and Chemical Products	381	1.1%	590	0.9%
Other Sources	1,691	4.9%	2,949	4.7%
Source of Injury - Unknown	2,826	8.3%	5,648	9.0%
Total	34,227	100.0%	62,473	100.0%

* Person - ill or injured worker: classifies self-injured person, bodily conditions, and self-induced bodily motion injuries.

** Person - other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.

*** Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).

Data Source: WCB Data, Prepared by Data Development and Evaluation

Type of Event or Exposure

This classification is used to describe the incident or event that directly resulted in the injury or disease. In 2007, 40.0% and 40.5% of the lost-time and disabling injury claims were due to bodily reaction or exertion. Overexertion was the most common type of bodily reaction and exertion, accounting for approximately one fifth of disabling injury claims and lost-time claims.

Of the overexertion injuries, 82.7% were caused by sprains, strains and tears, which resulted from excessive physical effort in activities such as lifting, pulling and pushing objects. Pressurized and non-pressurized containers were the main source of injury accounting for 28.5% of the overexertion disabling injury claims. Injury to the back was the most frequently reported part of body injured due to overexertion, at 56.4%.

Overexertion injuries were the most common in the following sectors: Business, Personal and Professional Services, Public Administration, Education and Health Services, Retail and Wholesale Trade Services, and the Transportation, Communication, and Utilities sector. For the other sectors, struck by objects was the leading injury type.

Table 7.4
Type of Event or Exposure - Alberta: 2007

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injury Claims	%
Bodily Reaction or Exertion	13,692	40.0%	25,295	40.5%
Overexertion	7,377	21.6%	13,120	21.0%
Bodily Reaction*	4,356	12.7%	8,044	12.9%
Repetitive Motion	1,234	3.6%	2,751	4.4%
Other Bodily Reaction/Exertion	725	2.1%	1,380	2.2%
Contact with Objects or Equipment	8,685	25.4%	18,730	30.0%
Struck by Object	4,528	13.2%	9,622	15.4%
Struck against Object	1,767	5.2%	3,624	5.8%
Caught in Object	1,519	4.4%	3,678	5.9%
Rubbed or Abraded	424	1.2%	824	1.3%
Other Contact with Object/Equipment	447	1.3%	982	1.6%
Falls	6,081	17.8%	9,403	15.1%
Fall on Same Level	3,767	11.0%	5,962	9.5%
Fall to Lower Level	1,841	5.4%	2,634	4.2%
Other Falls	473	1.4%	807	1.3%
Exposure to Harmful Substances	1,732	5.1%	2,512	4.0%
Transportation Accidents	1,787	5.2%	2,520	4.0%
Assaults and Violent Acts	609	1.8%	771	1.2%
Assaults and Violent Acts by Person(s)	486	1.4%	602	1.0%
Other Assaults and Violent Acts	123	0.4%	169	0.3%
Fires and Explosions	74	0.2%	101	0.2%
Other Events or Exposures	3	<0.1%	6	<0.1%
Type of Event - Unknown	1,564	4.6%	3,135	5.0%
Total	34,227	100.0%	62,473	100.0%

* Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.

Data Source: WCB Data, Prepared by Data Development and Evaluation

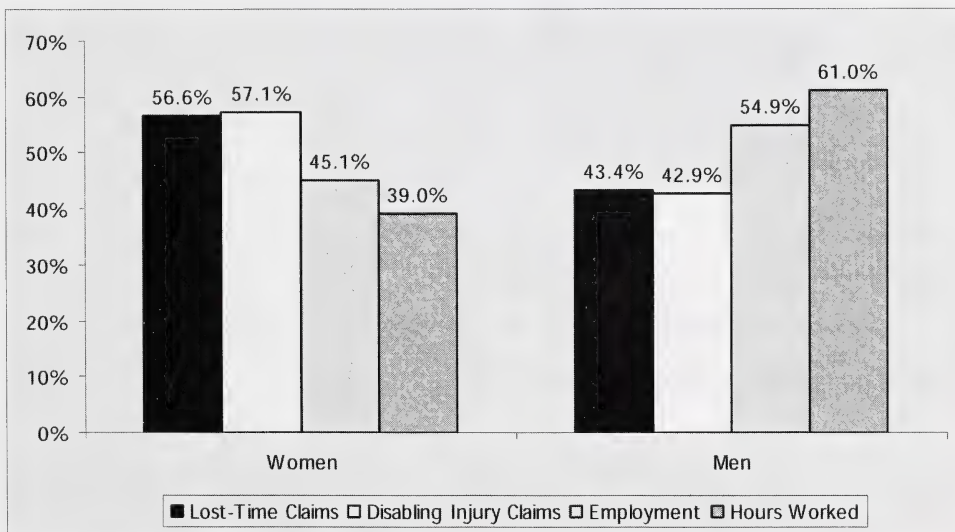
Workplace Violence

It is difficult to capture the actual number of violent incidents that take place in Alberta workplaces. In 2007, Statistics Canada released information from the 2004 General Social Survey of Victimization. Using a definition of violence as ‘physical assault, sexual assault and robbery’, it found 21% of violent incidents in the workplace result in injury and about 37% of violent incidents are reported to police (de Léséleuc, 2007). Women and men are almost equally likely to experience workplace violence (53% and 47% respectively), although 90% of incidents involve a single male perpetrator. In addition, violent workplace incidents involving male victims were more likely than those involving female victims to come to the attention of the police (57% of men compared to 20% of women).

In 2007, the WCB accepted 517 lost-time claims and 641 disabling injury claims related to assaults and violent acts by person(s). This equates to one in every 66 lost-time claims and one in every 98 disabling injury claims. The number of claims is not a reflection of violent incidents taking place in the workplace however, as not all incidents result in injury.

Chart 7.1

Proportion of Lost-Time Claims, Disabling Injury Claims, Employment and Hours Worked by Gender - Assaults and Violent Acts by Person(s), Alberta: 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2007 Historical Review)

Women filed more injury claims due to an assault or violent act than their male counterparts (see Chart 7.1). This difference between injury claims and police reporting

could mean several things, the most likely being that women are more willing to report claims to the WCB than report to the police, women are more likely to be injured in incidents of workplace violence, and the number of women injured as a result of workplace violence would be larger than the reported number of injury claims.

Violent incidents also varied greatly by industry sector. Statistics Canada found that 33% of victims worked in social assistance or health care (de Léséleuc, 2007). The WCB data suggests that assaults and violent acts are more likely in the Health Services Industries than in other industries in the province. Rehabilitation Services for the Disabled had the highest proportion of lost-time and disabling injury claims for assaults and violent acts by person(s) accounting for 21.5% and 19.4% of all claims. Security Services/Industrial Patrols (see Table 7.5) followed this.

Table 7.5

Lost-Time and Disabling Injury Claims by Industry - Assaults and Violent Acts by Person(s), Alberta: 2007

Industry	Lost-Time Claims			Disabling Injury Claims		
	Assaults and Violent Acts by Person(s) Claims	Total Claims	%	Assaults and Violent Acts by Person(s) Claims	Total Claims	%
Hospitals/Acute Care Centers (82100)	83	1,751	4.7%	103	2,118	4.9%
Rehabilitation Services For Disabled (82806)	64	298	21.5%	76	391	19.4%
Cities (95104)	64	1,325	4.8%	77	1,799	4.3%
Continuing Care Facilities (82808)	55	975	5.6%	74	1,325	5.6%
Social/Community Support Services (89925)	35	170	20.6%	44	222	19.8%
Alberta Government - Health/Social/Field Services (93201)	34	336	10.1%	34	387	8.8%
School Boards (80102)	27	570	4.7%	30	671	4.5%
Security Services/Industrial Patrols (89902)	20	132	15.2%	26	166	15.7%
Food/Convenience Stores (63100)	17	2,028	0.8%	18	3,098	0.6%
Restaurants/Take-Out Food Service (87501)	14	1,212	1.2%	16	1,490	1.1%
Hotels and Convention Centres (87503)	11	653	1.7%	12	985	1.2%
All Other Industries	93	24,777	0.4%	131	49,821	0.3%
All Industries	517	34,227	1.5%	641	62,473	1.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Duration of Disability

Duration of disability³⁵ is intended to show the severity of the effects of occupational injury and disease as reflected by the number of days off work. However, the efforts of employers to introduce modified work programs to integrate injured workers back into the workforce can have a positive impact on work days-lost.

Over half of all total lost-time claims in 2007 resulted in ten or fewer days-lost from work (see Table 7.6). Twenty-one percent of total claims resulted in 31 or more days-lost. The median number of days-lost was seven days in 2007, the same as in 2006 (see Table 3.1). The average number of days-lost was 22, down from 23 in 2006.

Table 7.6

Duration of Disability – Alberta: 2006 to 2007

Duration of Disability	2006		2007	
	Lost-Time Claims	%	Lost-Time Claims	%
1 Day	4,647	11.8%	4,372	12.8%
2 Days	3,640	9.2%	3,427	10.0%
3 - 5 Days	6,452	17.5%	6,280	18.3%
6 - 10 Days	5,272	13.5%	4,970	14.5%
11 - 20 Days	4,713	12.6%	4,281	12.5%
21 - 30 Days	2,584	7.3%	2,312	6.8%
31 Days or more	7,930	24.2%	7,202	21.0%
Unspecified	1,463	3.9%	1,383	4.0%
Total	36,701	100.0%	34,227	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

By industry sector, those with the highest median and average days-lost follow the same pattern. The Agriculture and Forestry sector had the highest average median days-lost at 21 and the highest average days-lost at 47, indicative of high injury severity. This was followed by the Mining and Petroleum Development sector with 12 and 33, the Construction and Construction Trade Services sector with 11 and 33, and the Transportation, Communication and Utilities sector with nine median days-lost and an average days-lost of 28.

Among the major nature of injuries or diseases, the median workdays-lost were highest for fractures and dislocations with a median of 30 and average days-lost of 50. Injuries to the leg(s), trunk and upper extremities were the part of body with the highest median days-lost and average days-lost, 11 and 32.

³⁵ The duration of disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

For sources of injury, minerals – metallic and nonmetallic had the highest median days-lost of 11, followed by structures and surfaces, 10, and vehicles, nine. These two sources of injury had average days-lost of 31 and 30. Of the types of event, fall to the lower level and repetitive motion had the highest median days-lost of 16 and 14. These two types of events had average days-lost of 41 and 28 respectively.

OCCUPATIONAL FATALITIES

The WCB accepted 154 occupational fatalities for compensation in 2007.

A WCB accepted occupational fatality is defined as the death of a worker resulting from a work-related incident or exposure which has been accepted by the WCB for compensation. Some of the fatalities accepted in a particular year occurred in prior years.

This section provides a description of the occupational fatalities and fatality rates for both the province and major industry sectors. It also breaks down incidents by type of event and injury, and worker demographics.

Types of Occupational Fatalities Accepted by the WCB

All fatalities were classified by type based on WCB classification standards. Occupational fatalities are classified into three general types:

- motor vehicle incidents (including latent motor vehicle incidents)
- workplace incidents (including latent workplace incidents)
- occupational disease

Occupational Health and Safety Officers investigate workplace incidents while local police authorities normally investigate motor vehicle incidents and workers' physicians report deaths due to occupational disease.

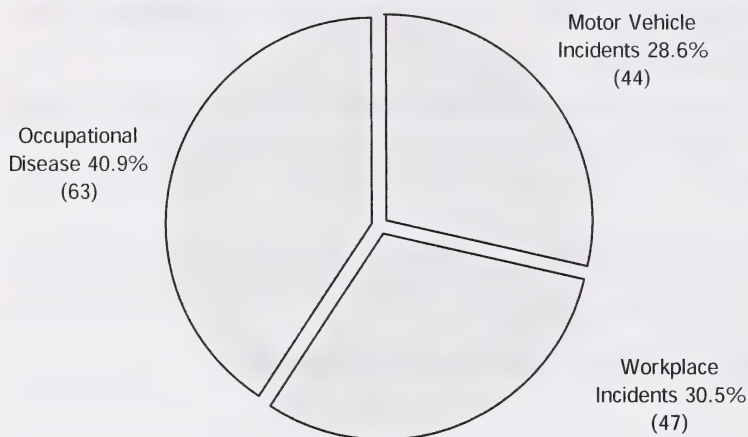
Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally-injured worker was either the driver or a passenger. This type of occupational fatality also includes cases involving aircraft crashes, train crashes, helicopter crashes and water vehicle crashes. In 2007, 28.6% of the occupational fatalities were motor vehicle incidents (see Chart 8.1).

Workplace Incidents

Workplace incidents consist of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. The proportion of workplace incident fatalities accepted by the WCB was 30.5% in 2007.

Chart 8.1

Types of Occupational Fatalities Accepted by the WCB - Alberta: 2007

Total Occupational Fatalities= 154

Data Source: WCB Data, Prepared by Data Development and Evaluation

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related such as asbestosis and coal workers' pneumoconiosis. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial exposure to the toxic substance, and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.* The proportion of occupational fatalities accepted in 2007 resulting from occupational disease was 40.9% (see Table 8.1).

Table 8.1
Types of Occupational Fatalities Accepted By the WCB³⁶ -
Alberta: 1998-2007

Year	Motor Vehicle Incidents		Workplace Incidents		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
1998	37	35.2%	33	31.4%	35	33.3%	105
1999	33	28.9%	39	34.2%	42	36.8%	114
2000	30	25.4%	51	43.2%	37	31.4%	118
2001	40	33.9%	33	28.0%	45	38.1%	118
2002	30	29.7%	40	39.6%	31	30.7%	101
2003	44	34.6%	37	29.1%	46	36.2%	127
2004	37	29.8%	38	30.6%	49	39.5%	124
2005	42	29.4%	40	28.0%	61	42.7%	143
2006	33	26.6%	37	29.8%	54	43.5%	124
2007	44	28.6%	47	30.5%	63	40.9%	154
Total	370	30.1%	395	32.2%	463	37.7%	1228

Data Source: WCB Data, Prepared by Data Development and Evaluation

Latent Workplace and Motor Vehicle Fatalities

Latent fatalities consist of workers who were involved in a workplace incident or exposure, or a motor vehicle incident that did not become a fatality until a much later date, often years later. These incidents were classified as occupational diseases. From 2002, these incidents are included with either motor vehicle or workplace incident categories in accordance to their original injury.

Table 8.2
Latent Fatalities Accepted by the WCB - Alberta: 2002-2007

Year	Number of Latent Motor Vehicle Incidents	Number of Latent Workplace Incidents	Total
2002	1	10	11
2003	0	12	12
2004	3	3	6
2005	3	6	9
2006	0	10	10
2007	1	7	8
Total	8	48	56

Data Source: WCB Data, Prepared by Data Development and Evaluation

³⁶ From 2002, latent motor vehicle and workplace incident fatalities have been classified under the original incident. Previously, these incidents have been classified and recorded as occupational disease fatalities.

Usually other contributing factors cause a latent fatality, although these contributing factors are the result of the initial injury or exposure. A motor vehicle incident, where a worker received leg injuries requiring surgery is a good example of this. Complications during surgery result in a blood clot causing a fatal stroke. Thus, the injury is classified latent because the original injury caused the requirement for surgery.

Over the past six years, there has been an average of nine latent fatalities accepted each year. In 2007, there were seven latent workplace incidents and one latent motor vehicle incident (see Table 8.2).

Occupational Fatalities: Ten-Year Trend Analysis

Over the past ten years, occupational disease fatality claims accounted for 37.7% of the total accepted fatality claims. Motor vehicle fatalities and workplace incident fatalities accounted for 30.1% and 32.2% of accepted fatality claims respectively (see Table 8.1).

The proportion motor vehicle fatalities account of the total accepted fatalities has remained broadly similar over the ten years, although the actual number of claims has been increasing. The proportion workplace incidents account of the total has fallen, although the number of claims remained similar. For occupational diseases, both the proportion and number of occupational disease claims have increased over the last ten years.

The actual number of accepted fatalities shows a general increase since 1998. This does not take in to account however, the change in the number of people working in Alberta, which has also increased significantly in the last ten years.

Occupational Fatality Rate

The fatality rate provides an estimate of the number of fatalities in a particular year compared to the size of the working population in a particular year. It is calculated by dividing the number of accepted fatalities in the year by the number of estimated person-years worked (workers covered by the WCB). The result is then expressed as fatalities “per million person-years worked”. Since 1998, the person-years worked estimates have grown by 46.1% from 1,103,317 to 1,611,892.

Table 8.3

Occupational Fatality Rates* - Alberta: 1998-2007

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Total Fatalities	105	114	118	118	101	127	124	143	124	154	1,228
Number of Fatalities Excluding Federal Industries	102	108	114	115	99	126	120	142	122	150	1,198
Fatality Rate	92	98	102	98	80	101	89	97	78	93	92

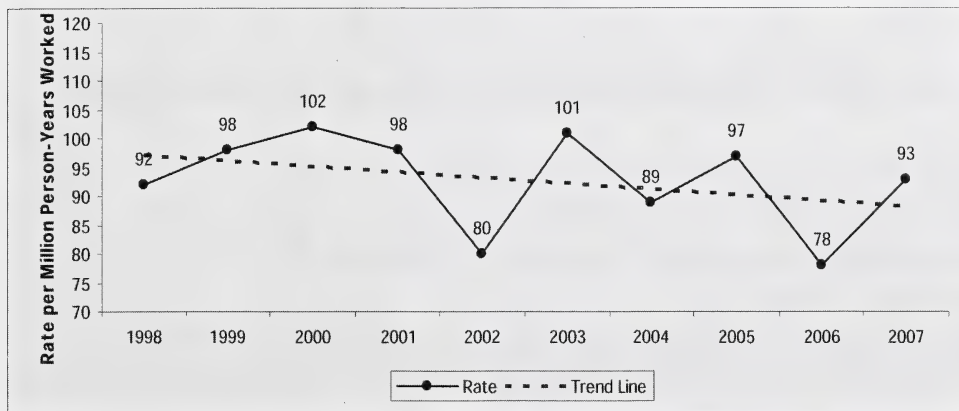
*Fatality rates are expressed as fatalities per million person-years worked. Estimates are based upon information provided by the WCB. Fatalities occurring under the jurisdiction of the Government of Canada are excluded from the calculation of the fatality rates.

Data Source: WCB Data, Prepared by Data Development and Evaluation.

Between 1998 and 2007, the provincial fatality rate fluctuates between 102 fatalities per million person-years worked in 2000, and 78 fatalities per million person-years worked in 2006. The average ten-year fatality rate was 92 fatalities per million person-years worked. In 2007, the fatality rate was 93 fatalities per million person-years worked. The trend line presented in Chart 8.3 shows a slight decrease in the fatality rate over time.

Chart 8.3

Occupational Fatality Rate - Alberta: 1998-2007



Data Source: WCB Data, Prepared by Data Development and Evaluation

Further analysis by accident type

In order to better understand the fatality trends, data has been grouped into two five-year periods. Between 1998 and 2002, there were 170 motor vehicle fatality claims accepted. Between 2003 and 2007 there were 200 (see Table 8.4). The rise over the last ten years is largely attributable to an increase in highway incidents.

Workplace incident fatalities display a different general trend with the number of fatalities due to workplace incidents remaining similar over the two five-year periods. The composition of events however, has shown change, with the number of fatalities as a result of exposure to harmful substances, fires and explosions and transportation accidents decreasing while the number related to being caught by object, bodily reaction or related to falls, increased.

In comparison to workplace and motor vehicle incidents, occupational diseases require a different method of analysis as they take place over time not in a single recordable event. Therefore, the occupational disease fatalities are presented in two separate frameworks of analysis, source and nature. Source of disease describes the actual substance or exposure that leads to a worker's death (e.g. asbestos). Nature of disease describes the condition that caused the worker's death (e.g. asbestosis).

Table 8.4 Motor Vehicle Incident Fatalities by Type of Event - Alberta: 1998 - 2007

Type of Event or Exposure	1998 - 2002	2003 - 2007	Number of Fatalities	%
Highway Incident	110	133	243	65.7%
Aircraft Incident	13	10	23	6.2%
Pedestrian Incident*	6	10	16	4.3%
Non-highway Incident**	4	4	8	2.2%
Railway Incident	2	2	4	1.1%
Other	35	41	76	20.5%
Total	170	200	370	100.0%

* Includes all non-passengers struck by vehicle or mobile equipment.

** Does not include rail, air or water accidents but includes motor vehicle incidents occurring off the highway e.g. Industrial or commercial premises, city roads or parking lots.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 8.3 Workplace Incident Fatalities by Type of Event - Alberta: 1998 - 2007

Type of Event or Exposure	1998 - 2002	2003 - 2007	Number of Fatalities	%
Contact with Objects and Equipment	54	70	124	31.4%
Struck by Objects	35	42	77	19.5%
Caught in Objects	19	26	45	11.4%
Struck Against Objects	0	2	2	0.5%
Falls	31	39	70	17.7%
Fall to Lower Level	23	27	50	12.7%
Fall on Same Level	6	10	16	4.1%
Other Falls	2	2	4	1.0%
Transportation Accidents*	23	18	41	10.4%
Exposure to Harmful Substances	20	15	32	8.1%
Fires and Explosions	22	6	28	7.1%
Assaults and Violent Acts	9	7	16	4.1%
Assaults/Violent Acts by Persons	6	7	13	3.3%
Other Assaults/Violent Acts	3	0	3	0.8%
Bodily Reaction or Exertion	1	7	8	2.0%
Unknown	36	37	73	18.5%
Total	196	199	395	100.0%

*Transportation accidents include all events that involve industrial vehicles, transportation vehicles or powered mobile industrial equipment. Motor vehicle incidents presented in Table 8.2 are not included in these figures.

Data Source: WCB Data, Prepared by Data Development and Evaluation

The most frequent source of occupational disease fatalities relate to exposure to asbestos, representing 72.0% of occupational disease fatalities from 2002-2007 (see Table 8.4). Consequently, the most frequent natures of occupational disease fatalities were also asbestos related: mesothelioma (a form of lung cancer largely caused by exposure to asbestos) at 30.3% and asbestosis at 19.4% (see Table 8.5).

Table 8.4

Occupational Disease Fatalities Accepted by the WCB, by Source of Disease - Alberta: 2002-2007

Source of Fatality	2002	2003	2004	2005	2006	2007	Number of Fatalities	%
Persons, Plants, Animals or Minerals	23	34	41	46	48	54	246	80.9%
Asbestos	22	29	38	43	40	47	219	72.0%
Silica*	0	3	3	1	4	3	14	4.6%
Coal Dust	1	1	0	2	1	0	5	1.6%
Grain Dust	0	1	0	0	2	2	5	1.6%
Other Persons, Plants, Animals or Minerals	0	0	0	0	1	2	3	1.0%
Chemicals and Chemical Products	4	6	6	11	4	9	40	13.2%
Smoke and Fumes	0	3	4	8	3	2	20	6.6%
Other Chemicals	4	3	2	3	1	7	20	6.6%
Bodily Reaction and Exertion	4	3	2	4	0	0	13	4.3%
Unknown	0	2	0	0	0	0	2	0.7%
Other	0	1	0	0	2	0	3	1.0%
Total	31	46	49	61	54	63	304	100.0%

*Gravel Dust.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 8.5
Occupational Disease Fatalities Accepted by the WCB, by
Nature of Disease – Alberta: 2002-2007

Nature of Fatality	2002	2003	2004	2005	2006	2007	Number of Fatalities	%
Neoplasms, Tumors and Cancer	15	23	30	32	17	34	151	49.7%
Mesothelioma**	12	16	21	14	8	21	92	30.3%
Other Neoplasms, Tumors and Cancer	3	7	9	18	9	13	59	19.4%
Respiratory Illnesses	10	18	17	24	34	27	130	42.8%
Asbestosis	3	6	7	14	17	12	59	19.4%
Silicosis	0	3	3	1	3	3	13	4.3%
Coal Workers' Pneumoconiosis	1	1	0	2	0	0	4	1.3%
Other forms of Pneumoconiosis*	3	3	4	5	8	5	28	9.2%
Other Respiratory Illnesses	3	5	3	2	6	7	26	8.6%
Heart-Related Diseases	4	4	2	3	2	1	16	5.3%
Unknown	1	0	0	0	0	0	1	0.3%
Other	1	1	0	2	1	1	6	2.0%
Total	31	46	49	61	54	63	304	100.0%

* Pneumoconiosis classifies conditions characterized by permanent deposition of substantial amounts of particulate matter in the lungs, and by the tissue reaction to their presence. Particulate matter includes inorganic as well as organic dusts.

** Mesothelioma is a form of lung cancer largely caused by exposure to asbestos.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Occupational Fatality Rates in Industry Sectors

The estimated occupational fatality rate for Alberta in 2007 was 93 deaths per million person-years worked (see Chart 8.3 and Table 8.7), an increase from 78 in 2006. It should be noted that, unlike the lost-time claim rate, the fatality rate is not a reliable indicator of the present risk of work-related injury and disease since conditions that resulted in the exposure or disease may no longer be present. An example of this is asbestosis.

Like lost-time claim rates, fatality rates vary across industry sectors due to the different types of work activity performed. In order to reduce year-to-year variations, a ten-year period, split into two five-year periods, was used to present fatality rates for each sector, dividing the total number of accepted fatalities in a sector by the total number of person-years worked during that period. Four sectors saw decreases in their fatality rate between these two five-year periods. The largest fall was in the Mining and Petroleum Development sector, 32.3%, followed by the Construction and Construction Trade Services sector, 11.1%. The largest increase in the fatality rate was in the Public

Administration, Education and Health Services sector which rose by 96.0% (see Note 8.1).

The Agriculture and Forestry sector had the highest fatality rate over the last ten years (see Table 8.8). The estimated ten-year rate of 258 per million person-years worked was 2.8 times greater than the ten-year provincial rate of 92 per million person-years worked. Although caution should be used in considering the fatality rate for Agriculture and Forestry. Most of the industries in this sector do not require compulsory workers' compensation coverage, resulting in the under-counting of the person-years worked and fatalities for this sector (see Note 8.2). Fatality rates reported should be more reliable for sectors where a majority of the industries have workers' compensation coverage.

Note 8.1

In 2003, the WCB inserted a "presumptive clause" for firefighters, who are included in the Public Administration, Education and Health Services sector. This clause presumes that certain primary site cancers following minimum periods of exposure are work-related, thereby automatically entitling those workers to workers' compensation benefits (WCB *Insight*, 2003).

Note 8.2

In 2007, Alberta Agriculture, Food and Rural Development reported 12 farm related fatalities. Seven of these involved machinery and three were the result of falling from horses. (*Agri-News*, 2008).

Table 8.8
Occupational Fatality Rates by Industry Sector -
Alberta: 2003-2007

Major Industry Sector	1998 - 2002		2003 - 2007		Ten-year Total	
	Number of Fatalities	Fatality Rate	Number of Fatalities	Fatality Rate	Number of Fatalities	Fatality Rate
Agriculture and Forestry	13	257	13	259	26	258
Business, Personal and Professional Services	18	17	30	23	48	21
Construction and Construction Trade	175	225	231	200	406	210
Manufacturing and Processing	71	87	87	91	158	90
Mining and Petroleum Development	78	195	69	132	147	159
Public Administration, Education and Health Services	26	25	61	49	87	38
Transportation, Communication and Utilities	104	213	112	194	216	203
Wholesale and Retail	44	39	52	36	96	38
Unspecified Sector	27	N/A	17	N/A	44	N/A

Data Source: WCB Data, Prepared by Data Development and Evaluation

The Construction and Construction Trade sector accounted for 34.4% of occupational fatalities over the last five years. In 2007, it accounted for 32.5% of fatalities (see Table 8.9) compared to 17.9% of the total person-years worked in the province (see Chart 4.1 and Note 8.3).

Note 8.3

The International Labour Organization (ILO) estimates that there are at least 60,000 fatal accidents on construction sites *globally* each year. In industrialized countries, as many as 25% to 40% of work related deaths occur on construction sites, even though the sector employs only 6% to 10% of the workforce (*ILO Facts on Safety at Work, 2005*).

Table 8.9
Occupational Fatality Claims by Major Industry Sector -
Alberta: 2003-2007

Major Industry Sector	2003	2004	2005	2006	2007	Number of Fatalities	%
Agriculture and Forestry	1	2	1	4	5	13	1.9%
Business, Personal and Professional Services	8	6	2	5	9	30	4.5%
Construction and Construction Trade	37	47	55	42	50	231	34.4%
Manufacturing and Processing	14	16	20	16	21	87	12.9%
Mining and Petroleum Development	17	12	17	13	10	69	10.3%
Public Administration, Education and Health Services	15	7	15	10	14	61	9.1%
Transportation, Communication and Utilities	21	22	20	22	27	112	16.7%
Wholesale and Retail	13	8	11	10	10	52	7.7%
Unspecified Sector	1	4	2	2	8	17	2.5%
Total	127	124	143	124	154	672	100%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Occupational Fatalities by Age Group

Distribution of occupational fatalities in Alberta is not even across age groups. Workers aged 45 years and older accounted for about 72.1% of fatalities in 2007 (see Chart 8.10). As many fatalities in this age group are the result of working conditions present when these workers were younger, removing the occupational disease fatalities from the total allows for a better comparison. Workers aged 45 years and older accounted for 47.7% of the motor vehicle incident fatalities in 2007 and 57.4% of the workplace incident fatalities, while accounting for 38.8% of those in employment.

Table 8.10

Occupational Fatalities by Age Group – Alberta: 1998-2007

Age Group	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
12-14 Years	0	0	1	0	0	0	0	1	0	0	2
15-24 Years	10	13	12	9	6	8	13	10	4	8	93
25-45 Years	42	37	49	39	35	38	36	35	34	35	380
45+ Years	53	64	55	69	60	81	75	97	86	111	751
Unspecified	0	0	1	1	0	0	0	0	0	0	2
Total	105	114	118	118	101	127	124	143	124	154	1,228

Data Source: WCB Data, Prepared by Data Development and Evaluation

Chart 8.4

Occupational Fatalities by Age Group – Alberta: 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation.

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are issued by Certifying Partners and are co-signed by E&I.³⁷

In 2007, there was an increase in employers with a COR to 7,123, from 6,232 in 2006. These employers represented 4.9% of all employer accounts with WCB in the province, although they represent 39.3% of the total person-years worked (see Table 9.1).

The Mining and Petroleum Development sector had the highest proportion of person-years worked certified and the Construction and Construction Trade Services sector had the highest proportion of employers with a COR. The Business, Personal and Professional Services sector and the Wholesale and Retail sector had the lowest proportion of employers and person-years worked certified.

Table 9.1
Employers With Valid COR — Alberta: 2007

Sub-Sector	% of Total Employers Certified	% of Total Person- Years Certified
Agriculture and Forestry	7.2%	29.6%
Business, Personal and Professional Services	1.6%	23.5%
Construction and Construction Trade	7.3%	57.2%
Manufacturing and Processing	5.6%	49.2%
Mining and Petroleum Development	5.8%	70.6%
Public Administration, Education and Health Services	6.0%	48.8%
Transportation, Communication and Utilities	6.2%	39.7%
Wholesale and Retail	2.9%	23.8%
Total	5.2%	41.9%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Between 2006 and 2007, the lost-time claim rate for 2006 COR holders fell by 9.6%, from 2.42 to 2.19 per 100 person-years worked. The rate for all non-COR holders decreased by 9.9%, from 2.30 to 2.08 per 100 person-years worked. The disabling injury

³⁷ For more information on the COR program visit <http://employment.alberta.ca/cps/rde/xchg/hrc/hs.xsl/277.html>

rate for COR and non-COR holders decreased by 5.5% and 7.3% respectively, to 5.19 and 2.93 per 100 person-years worked (see Table 9.2). A low lost-time claim rate and high disabling injury rate can be indicative of proficient claims management, however, it may also be a reflection of larger employers having greater capacity to offer modified duties to injured workers than smaller employers.

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards, with this group seeing continued improvement. Some non-COR holders have good programs in place above this standard, whereas others do not. This makes evaluating improving health and safety trends less clear for this group.

Table 9.2

**Lost-Time Claim and Disabling Injury Rates for COR Holders —
Alberta: 2006 and 2007**

Employer	Year	Number of Accounts	Person- Years Worked	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2006	8,076	652,171	15,785	35,796	2.42	5.49	-9.6%	-5.5%
	2007	8,026	674,598	14,761	34,978	2.19	5.19		
Non-COR	2006	140,020	907,907	20,916	28,729	2.30	3.16	-9.9%	-7.3%
	2007	146,846	937,294	19,466	27,495	2.08	2.93		

Data Source: WCB Data, Prepared by Data Development and Evaluation

In 2006, E&I undertook research comparing the performance of COR holders against a more comparable group of non-COR holders. The non-COR holders were selected based on two variables of information: size and a measure of injury-risk (based on premium payments). Employers that were COR holders in 2004 were selected, tracked through to 2006 and the performance compared against this more comparable group. The lost-time claim rates for COR holders fell by 8.9% between 2004 and 2006, to 2.26 per 100 person-years worked, compared to the non-COR holder group, which fell by 2.6% to 3.17 per 100 person-years worked.

The fall in the lost-time claim rate for COR holders in this study equated to a drop of 900 lost-time claims from 2004 to 2006 (adjusted for change in workforce size). This can be compared with a fall of 250 for the non-COR group. When using the average cost of a lost-time claim over the full cycle of the claim, this difference equates to an approximate cost saving of around \$15 million in injury compensation.

WORKPLACE INSPECTIONS AND ORDERS

E&I works in co-operation with employers, workers and industry associations to support the establishment of effective health and safety management systems.

While promoting self-reliance at Alberta workplaces, E&I also uses inspections and incident investigations to identify non-compliance with legislation so health and safety can be improved.

The intent of inspections is to monitor compliance at work sites where an inspection is likely to make the most impact. Poor health and safety performance and uncontrolled hazards are targeted for inspections. E&I officers also investigate reported complaints and serious incidents. In 2007, E&I completed 13,761 inspections.

When non-compliance is identified, E&I will work co-operatively with the responsible parties to correct the situation. When necessary, orders will be issued by E&I to correct variances with regulatory requirements. E&I issued 9,757 orders in 2007.

Table 10.1

Workplace Inspections and Orders - Alberta: 2007

	2007
Number of Inspections	13,761
Number of Orders Written	9,757

Data Source: Worksite Inspection Tracking System, 2007

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APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim	A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work, beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.
Modified work Claim	A modified work claim is a claim for an occupational injury or disease where workers had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.
Disabling Injury Claim	Disabling injury (DI) claims combine both the lost-time and modified work concepts to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.
Person-years worked	Person-years worked are estimates calculated from wage and payroll data provided by account holders to the WCB. Alberta Employment and Immigration uses data to estimate an average industry wage, and uses the average industry wage and employer payroll data to estimate person-years worked for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.
Lost-Time Claim Rate	The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's} \times 100}{\text{Person-years worked}}$$

**Disabling injury
Rate**

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-year estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one-year of work. The disabling injury rate is similar to the lost-time claim rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's} \times 100}{\text{Person-years worked}}$$

**Duration
(Days-lost)**

The duration of disability is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Employment and Immigration obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.

Duration Rate

The duration rate is calculated by dividing the number of workdays-lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as days-lost per 100 person-years worked, and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.

$$\text{Duration Rate} = \frac{\text{Disability Days} \times 100}{\text{Person-years worked}}$$

**Industry
Coverage**

About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Fatality Rate The fatality rate is calculated by dividing the number of accepted fatalities by the person-years worked estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years worked. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate.

$$\text{Fatality Rate} = \frac{\text{Number of Fatalities} \times 1,000,000}{\text{Person-years worked}}$$

NEC Means 'Not Elsewhere Classified'.

UNS Means 'Unspecified'.

Labour Force Survey The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. The objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force - and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates.

For the most part, annual LFS data has been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. The LFS uses a different industry classification than WCB, although there are similarities in structure. Where possible, the two data sources are used comparably and proportions (of totals) have been used to evaluate information generated from both sources. Using proportions attempts to overcome obvious distortions in the numbers in employment from both sources, although the impact on the proportions from industry coverage differences is unclear. In certain instances, monthly LFS micro-data files have been combined and used to produce proportion estimates for the whole year for particular sub-groups of the population.

For further information on the LFS, please see
<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/67.html>

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Employment and Immigration website:

<http://employment.alberta.ca>

Work Safe Alberta website:

www.worksafely.org

Workplace Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690
<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/2874.html>

Certificate of Recognition (COR) Program:

<http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/277.html>

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